THE BUILDER

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ART AND SPIRITUAL VALUES

THE Church Congress, held at the beginning of October in Southport, has passed doubtless without receiving much attention among architects, save from a small and special group. It is noteworthy, however, that one of its sessions was definitely given over to the consideration of art as the expression of spiritual values, and Dr. Percy Dearmer, in the opening paper, no doubt voiced the feelings of the many who were present when he spoke of the arrears which the Church had to make up before it got beyond the architecture which expressed nothing but a sham romance and a sham antiquity.

But the Church architecture of the past hundred years has expressed much more than this. There is perhaps no standard more delicate than architecture whereby the values of this civilisation may be appraised, probably for the reason that architecture and its allied crafts—unlike painting and sculpture—is a hybrid art having its basis in science as well as æsthetics; it is therefore more definitely expressive of common uses and intimate human ends than painting and sculpture can be. It is when we regard architecture as an expression of life that we realise how the Church for the last century or so has attempted to keep its art, its architecture and its crafts, in a kind of enclosed garden apart from the main influences of its time. By averting its face from the present and concentrating its interest upon mediæval times it has almost succeeded for the better part of a century in creating a tranquil backwater of art—a kind of art of escape—shut away from the uneasy flux of ideas around. A few great artists and craftsmen have been produced in this quiet corner, men whose unique temperament enabled them to escape from the crude virility of the present to live somewhat unnaturally in the rarefied air of an idealised past, and by their scholarship to foster and produce the detached art required by the Church.

For the first time in history we see an art of the Church different from the other art of its time; previous hieratic art, though it might differ from the so-called secular art in this point or in that, differed only in that which was adventitious. Modern hieratic art differs in essentials from the other art of to-day. This is a very striking fact which hitherto has not received the attention it deserves. Upon further consideration, however, it almost seems as if the delightful mediæval pattern of this tranquil and detached corner of art is beginning to dissolve, and perhaps with one exception nothing vital seems to be taking its place From the nature of the case this must be so in any art revival which finds its satisfaction in the form displayed rather than in the spirit involved

Mediæval art—one and indivisible, the same for the church, castle, cottage and civic life—was, in its prime, almost obsessed by the value of the new ideas arising in the civilisation around; its vitality was uncanny. As Mr. Prior has pointed out, it took only thirty-five years for the first rough sketch of the complete Gothic of Worcester to flower into the finished expression at Lincoln; and later the new imaginative conception at Gloucester choir spread its beautiful infection with amazing rapidity into all corners of the land. The Church would say this was literally an example of the Spirit of Life making contact with men of mediæval England, in comparison with which the anæmic and tepid inspiration behind the art of the Church to-day is fundamentally little better than mechanism; at best it is a scholarly synthesis of old forms, often skilful, sometimes pleasing; at its worst, it is mere mediæval mimicry. But whether good or bad, it can only be produced as a kind of hot-house growth carefully preserved from the draught of new influences from the outside. It is doubtless the ugliness of constructional engineering that prevents us from seeing that it is this most modern of activities and not our Neo-Gothic that is the true analogy to the constructional art of mediæval times. Moreover, a backward orientation is opposed to what must be one of the chief aims of the artist, namely, to bring to the surface of consciousness the spirit of his age and thus to enrich our experience. Owing to the muddled æsthetics of the last century, not only the Church but most of us have failed to recognise that the Gothic revival was a movement philosophically unsound, for it was an attempt to pass the same water under the same bridge twice, which is impossible.

For some time past it has been customary in architecture, and especially in church architecture, to stress the old at the expense of the new—it is quite beside the point, however, to put the new and the old into opposition; each has its worth, but the greatest value only results when a proper balance is maintained between them. Thus at the present time it is necessary to stress the new—perhaps a little unduly—in order that the virtue of balance may be regained, a balance, be it remembered, which always obtained in mediæval architecture.

After a visit to the Church Congress one was left with the impression that, had the Church during the last century, and in imitation of its mediæval predecessors, had greater faith in the value of the new life, in all the phases that are continually creating themselves around us, new values which concern so vitally the form and content of contemporary art, there is no knowing what ameliorative influence it would have had upon the dehumanising forces which seem to have dominated for so long the sacred and elemental art of building. Perhaps this changed mental attitude is already becoming flesh before our eyes in the new Liverpool Cathedral, where it seems possible that the traditional forms are clothing a new humanism.

This may be so or it may not—we are too close to the event to be sure in our criticism; but in any case the progress will be slow, seeing that we are faced with a civilisation which, for the last century at least, has been based almost entirely upon a trust in economic values, and which does not look beyond the scientific categories for its salvation.

But on the whole there are grounds for hope. The arrangement of the masses in the new Cathedral is more logical and fluent in its geometry than has been seen in church building for some hundreds of years, and in its just adaptation of part to part it is surely symbolical of the ideal social state for which all men of good will so earnestly crave. The Greek qualities of clarity, spaciousness and light, are developing in the design values essential to nobility of life and the decorous association of man with man. Such humanist values were distrusted in mediæval times and the modern neo-mediævalist does not seek to mitigate this distrust.

Doubtless quite unintentionally, but none the less truly, the new Liverpool Cathedral seems to be an attempt in architecture to solve the outstanding problem which is in front of the Church to-day, namely, the reconciliation—if such is possible—of the philosophy which has Christianity for its basis with that which is based on Greek thought.

There may be many who would say that they are sure that no such thoughts ever entered the head of Sir Giles Scott in designing his cathedral, and probably they are right; but things that are born of the spirit are not necessarily or immediately on the surface of consciousness. The new life in men and things is mostly created behind the back of our everyday mentality, and it is only the next generation but one that realises what a gracious or ungracious thing their forebears produced.

NOTES

Our Art Standards. We wonder whether the remarks of Sir Edwin Lutyens, in his address on "Gas" to the Liverpool Architectural Society last week, have been correctly reported, but if so, it is somewhat remarkable that even he should have such a poor opinion of our present-day art standards and such a robust faith in the future of the arts. So low have our art standards fallen, he tells us, that the latent talent "if brought out would swamp all who are now practising the arts." He is convinced that the country is full of dormant genius only needing a patron to awaken it, and that the future holds in store for us a period of art greater than the world has yet seen. But if he is right about our low standard of art, what a commentary on our methods of training—or does it all depend on the absence of the patron? Perhaps, after all, the standard is not quite so low as Sir Edwin would have us think, and it may be that even with the patron we should not get the distressing results he contemplates.

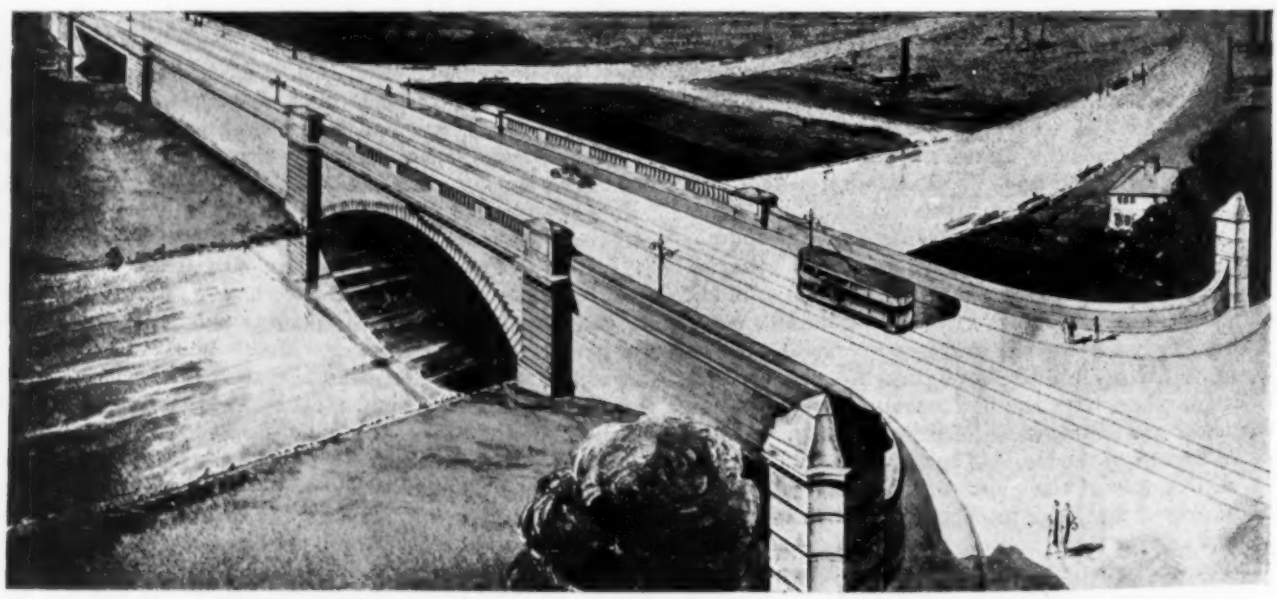
Neglected Tombstones. It is a very encouraging sign that so many willing subscribers have been found to Mr. Maurice B. Adams's efforts to restore the interesting old tomb by Sir John Soane in Chiswick Churchyard. There ought to be more respect shown and regard for the care of old tombstone memorials in our churchyards. There are others in the same churchyard besides this one, which we illustrate, which one cannot see fallen into extreme neglect without regret. It is to be hoped the authorities will see their way to remove the iron railings which run close to the Soane tombstone and cannot surely be necessary.

A New Scale of Charges Form. The announcement made by Mr. Douglas Scott at the recent meeting of the Architects' Defence Union that the Practice Standing Committee of the Institute has devised a new and simplified form of the Scale of Charges, capable of being put into an ordinary envelope, will be received by architects with a good deal of satisfaction. The old form was a very clumsy and formidable document, which must often have been responsible for delaying, if not altogether postponing, action by would-be clients. The new form provides at a glance all the necessary information required by clients, and should be a considerable help to architects in settling the preliminary details of a commission.

Concert Halls. We do not share the alarm that has found expression in the daily Press at the expected conversion of the Queen's Hall into a film theatre. The law of demand and supply is ever in operation, and there is, happily, a sufficient demand for high-class music in London to call forth response in the building of new halls in which the principles of acoustics may possibly meet with more attention than hitherto from architects.

Trade Unions and the Country. With reference to our note on Trade Union Law last week, pointing out the danger to the country from a large combine of Trade Unions, we notice that the Home Secretary at the annual dinner of the Society of Motor Manufacturers and Traders, on the evening preceding the publication of that note, apparently speaking for himself but not for the Government, took the same point. He is reported as having said, in speaking first of the Coal Dispute: "They," referring to the country, "were passing through a crisis which because of its length was quite as serious as the general strike. He thought the time was coming when—he would not say the Government should realise; they had realised it—but when the country should be called upon to realise that a great question would have to be determined in the near future. By whom was Great Britain to be governed?" He later went on to say, "There was something else the Government were considering to-day. It was considering the attempt that was being made by one class of the community by a great federation of Trade Unions to dominate, by powers which were above the law, the whole community of the country."

A Combination of Unions. This latter was the very point we called attention to as the coming danger. If a single dispute can assume such proportions as the coal dispute, which, since the general strike, has been limited to a single industry, what would be the result were powers to be vested in a combination of Unions into one body? The country has long recognised that in industrial matters freedom must be conceded to a union to declare a strike, but is the coal dispute an industrial dispute in the stage it has now reached? Mr. Cook, the secretary of the Miners' Federation, implies it is not. Speaking at Ryhope, on the 16th instant, he is reported as having said: "The miners' object was now to intensify the campaign not because they wanted to destroy anything. Destruction was not their object, and he hoped never would be. They had brought nationalisation nearer by this struggle, which had now cost £300,000,000. The nation was bound to recognise that that was a burden which it could not bear, and it was a cost the



New Bridge at Salford, Birmingham. MR. HERBERT H. HUMPHRIES, M.Inst.C.E., City Engineer.

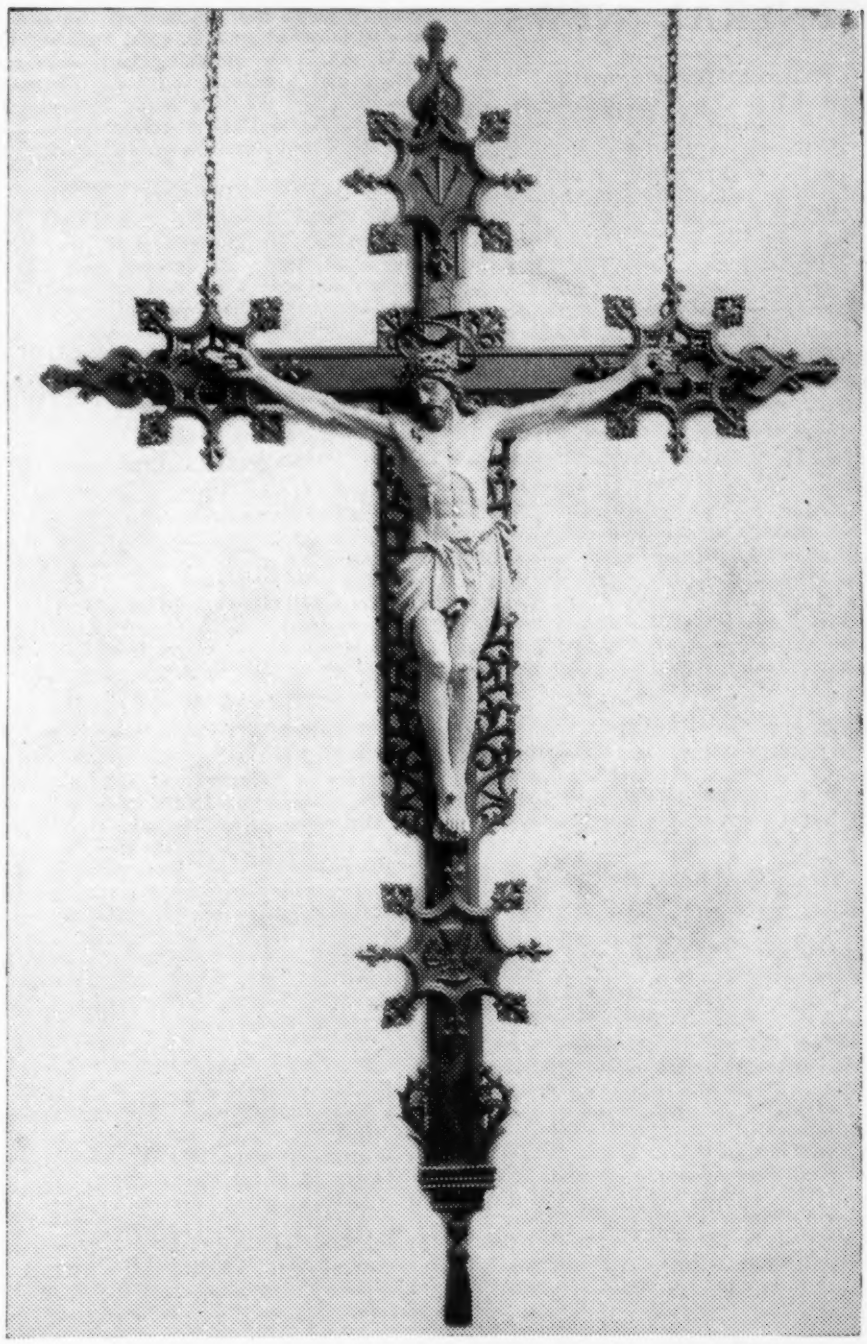
[This new bridge, recently opened, replaces two old bridges, and consists of a continuous viaduct over the River Tame and the Tame Valley Canal. The river bridge is a skew-back arch, having a span of 72 ft. and a rise of 14 ft., while the canal bridge is of the deck plate girder type, both bridges being carried on mass concrete abutments and foundations.]

coal owners would not pay. They must fight on to secure their rights." Is that what the nation is recognising? On the contrary it now begins to realise that this is not an industrial struggle at all but that it is an attempt to force upon the nation a political issue—Nationalisation.

Municipal Housing. IN her presidential address to the Women's Engineering Society at Leeds, in September, Mrs. L. A. Willson, M.B.E., said that soon or late it must be realised that the Housing subsidy must stop, and that unless private builders became more alert in their own interests and took more risks in building as in the past house building stood a good chance of becoming merely a trading department of the local authorities. In support of the contention that initiative pays, Mrs. Willson quotes the fact that since July, 1925, she has built and sold 72 houses, and has now under construction 160 more. We are inclined to agree with the speaker from the point of view of the danger of losing initiative, but we venture to suggest that from the national welfare standpoint municipalities should have something to do with the control of workmen's houses, as they are in a better position to gauge requirements and to allocate houses to deserving cases. The worker for whom municipal housing authorities are building is unable to buy his house, and as the average private builder is unable to wait over a number of years for his reimbursement, the housing subsidy comes in the nature of a godsend to the poorer worker.

Interpretation. IN these modern days we are not so ready to discover what is the prevailing sentiment about a cenotaph design. We have lost the overwhelming religious feeling of the Middle Ages, when the qualities of Gothic art appeared to satisfy the aspirations of so many for a heaven of the Christian faith with its soaring effects of arches, pinnacles, and spires. Neither are we in sympathy with the expressions of an earlier time, where breadth, solidity and mass, clings, as it were, with heavy burden to the earth, as though typical of the heavy burdens of a sternly governed people. What, therefore, would typify the aspirations of our own day? The accepted design at Liverpool is a solid oblong block of masonry, of excellent proportion and effective decoration; but does it speak of anything but patience, resignation, and grief? Perhaps, flanked by four standards crowned by angels, the aspirations of hope might be typified; but in itself it does nothing to lighten the tragedy of broken lives or lead the thoughts to something we call heaven.

Architectural Criticism and the Ugly Building. SOME pertinent remarks are made on architectural criticism in an article in the October issue of *Architecture*, which have a bearing on the kind of criticism referred to in the leading article in our last issue. "For the sake of argument," says our contemporary, "it might be conceded at once that a sincere critic would be performing a service to the public and to architecture in drawing attention to a building flagrantly ugly and in bad taste. Consequently, it is more important for our purpose to consider the critics' attitude towards a really bad building, than towards one which happens to fall below a certain standard level of excellence. If we are to be just in this matter of criticism we will call to mind certain buildings which fail, both in mass and detail. Architecturally they are complete failures: they have not a redeeming feature. Parenthetically, it should be noted that we are judging merely what we can see from the street. There are functional qualities, perhaps, which we ignore or cannot appreciate, and at a later stage in our discussion these hidden qualities may be submitted as excuses. With a free charter to criticise, the critic will proceed to show what the public must be prepared to tolerate for many years to come. That the architect concerned is likely to suffer in consequence is a logical conclusion which hitherto seems to have been considered too elementary to mention. . . . It is not certain than an ugly building is sufficient justification for a bankrupt architect. It is reasonable to suppose that architects realise that the plain unvarnished truth would damage the reputation of some of their colleagues, but it is characteristic of human nature that many would be willing to take the risk in the belief that their own work would be immune from damaging criticism."



Hanging Crucifix, at All Saints' Church, Middlesbrough.

MESSRS. BODLEY & HARE, Architects; MR. GILBERT BOULTON, Craftsman.

[This crucifix is executed in gilded oak. The cross, which is over 14 ft. from head to foot, is finished with four cusped ends containing the four emblems of the Passion.]

GENERAL NEWS

Professional Announcements.

Mr. James Walsh has been appointed Borough Surveyor of Clonmel.

Mr. D. Harvey, A.R.I.B.A., chief assistant, City Architect's Department, Hull, has been appointed to the post of City Architect, rendered vacant by the retirement of Mr. J. H. Hirst, F.R.I.B.A.

Mr. Leonard Crowfoot, L.R.I.B.A., of Long Melford and Sudbury, Suffolk, has taken over Messrs. Holland & Sons' practice at Newmarket, and the firm in future will be Messrs. Holland, Sons & Crowfoot.

Mr. A. G. Stedman, M.S.E., of 317, High Holborn, W.C.1, has been appointed consulting engineer (Civil) for Brooklands Track.

Lectures on Architecture for Building Trade Workers.

The Council of the R.I.B.A. are holding a series of informal illustrated lectures on architecture confined to workers in the building trades. The lectures will take place at 7.30 p.m., at the R.I.B.A., 9, Conduit-street, W.1. On Thursday, November 4, Mr. Hubert Worthington, A.R.I.B.A., will lecture on "Materials and Craftsmanship"; on Tuesday, November 16, Mr. Howard Robertson, F.R.I.B.A., will lecture on "Good and Bad Buildings"; and on Tuesday, December 14, Mr. W. G. Newton, F.R.I.B.A., will lecture on "The Wealth of England." All men employed in the work of building are cordially invited, admission being free. Buffet refreshment will be served at 7.30 p.m., before the lectures.

Tablets for "Buildings of Merit."

It will be remembered that the Council of the R.I.B.A. a few years ago decided to award annually a special medal for "a building of merit completed within a radius of four miles from Charing Cross." The Institute has now informed the L.C.C. that it has been decided to add to the interest of the award by affixing a suitable tablet to each building chosen for the honour. The *personnel* of the jury making the award will also be strengthened by the addition of one representative each of the City Corporation, the London County Council, and the Metropolitan Boroughs Standing Joint Committee. The General Purposes Committee of the County Council recommend that their architect shall be appointed as their representative on the jury.

Architect's Estate.

Mr. George Crawley, Chelsea Park-gardens, Chelsea, left £33,495.

New University Site.

The senate of the University of London, subject to the consent of the Chancellor of the Exchequer to proposals put forward by the university, have authorised definite negotiations with the Duke of Bedford for the purchase of part of the Bloomsbury site.

Town-Planning at Weston-super-Mare.

Weston-super-Mare has recently completed the first stage of a comprehensive town-planning and development scheme. The Council has also decided to join the Bristol Regional Planning Committee, a body which is bound to exercise a far-reaching influence upon the future of the region around Bristol.

Yeomanry War Memorial.

A memorial to officers, non-commissioned officers, and troopers of the City of London Yeomanry (Rough Riders) who fell in the war has been unveiled in St. Bartholomew-the-Great, Smithfield. The memorial, which is placed in a recess and consists of a three-panelled tablet containing the names of about 150 dead, with symbolical figures in low relief on each side, has been designed by Sir Aston Webb.

Antique Dolls' House.

What may prove to be the earliest British dolls' house has just been discovered in an old country house near Chelmsford. It is a two-storied house about 5 ft. high, built entirely of solid oak, and containing four large rooms, attics, and a balcony on top. The cabriole legs on which the dolls' house is mounted and the panelling and the mirrors are, it is said, of definite Queen Anne design and workmanship.

Obituary.

Mr. Walter Money, F.S.A., who died recently at Newbury, at the age of 90, was born on August 21, 1836. He devoted himself to local history and antiquities, and was local secretary for Berkshire of the Society of Antiquaries and of the British Archæological Association, and correspondent of the National Trust. He presented the site and raised funds for the erection of the memorial to Lord Falkland on the battlefield of Newbury.

Welsh Headland Disappearing.

Concern is being felt in North Wales through the gradual disappearance of the Penmaen headland, east of Colwyn Bay, caused by extensive quarrying for limestone. The Town Council has decided to communicate with the Commissioner of Woods and Forests, who administer the headland, as apart from its beauty, Penmaen Rock, it is stated, is a natural breakwater for the protection of Colwyn Bay sea front from tidal encroachments.

Allied War Memorial at Liege.

The King of the Belgians has unveiled in the cemetery of Robermont at Liége a monument to the Allied dead who fell in the Liége district at the beginning of the war. The monument takes the form of a pyramid on a base carved with bas reliefs, and bears two inscriptions. One reproduces the Proclamation of General Lemans, the defender of Liége, appealing to the population to show their calmness and patriotism and the other is the bulletin of victory addressed by Marshal Foch to the Allied Armies. Together they represent the first and last proclamations of the war.

Early Roman Road-making.

Recent excavations by the Woolhope Naturalists' Field Club at Kenchester, in Herefordshire, which is the site of the Romano-British town of Magna, have revealed some interesting details with regard to the construction of the Roman roads both within and outside the town. Various trenches have been dug, which have revealed the main street of the town. This is found to be more than 30 ft. in width, with a cobbled metalling measuring more than 18 ft. The road construction consisted of a layer of rough cobbles, 10 in. thick, 5 in. of small cobbles, laid in pink gravel, and then 14 in. of large cobbles, held in place by large stones at the edge. The total thickness of the construction was, therefore, nearly 2½ ft. The presence of the large stones is specially interesting, for heavy stones at the edge were necessary to keep the road materials from spreading.

Town Planning: Annual Report.

In view of the general importance of Town Planning, not only to local authorities and their officials but also to private interests concerned in the development of land, the part of the Annual Report of the Ministry of Health for 1925-1926, which deals with this subject, has been published separately. The report contains a statement not only of the position of town-planning schemes throughout the country at the end of the year and of the progress of regional planning, but also of the attitude of the Ministry on a number of points of general importance which have arisen in connection with town planning and with appeals relating to proposed developments.

Copies of the publication may be purchased, price 6d., directly from the Stationery Office, at the following addresses: Adastral House, Kingsway, London, W.C.2; York-street, Manchester: 1, St. Andrew's-crescent, Cardiff; 120, George-street, Edinburgh; or through any bookseller.

COMPETITION NEWS

The Llantarnam Urban District Council Housing Lay-out.

The following notice has been issued by the R.I.B.A.:—"Members of the Royal Institute of British Architects must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions."

Coulsdon and Purley Council Offices and Fire Station Competition.

The assessor in this competition, Mr. P. D. Hepworth, F.R.I.B.A., has made the following awards:—1st, Messrs. W. B. Nicholls & B. Hughes, Raymond Buildings, Gray's Inn, London, W.C.; 2nd, Mr. C. Cowles-Voysey, Gray's Inn-square, London, W.C.; 3rd, Mr. C. E. Handscomb, Sanderstead. The assessor especially commends the designs submitted by the following architects: Messrs. R. Knott & E. S. Collins, Adelphi, London, and Mr. H. T. B. Barnard, of Maidstone and Bedford Row, W.C.

COMPETITIONS OPEN.

New Offices for Scottish Life Assurance Society, Bothwell-street, Glasgow. Mr. John Keppie, A.R.S.A., F.R.I.B.A., assessor ..... (Date of application now past.)	Particulars published in "Builder."	Sending in date. Aug. 6 .. Oct 3.
Daily Mail Ideal Houses Competition in two sections:—(A) houses costing £1,500; and (B) houses costing £850. Prizes: £150, £100, and £50. Apply Secretary, Ideal Houses Competition, 130, Fleet-street, London, E.C.4. Mr. E. Guy Dawber, P.R.I.B.A., assessor		Sept. 10 .. Nov. 30
Academy, Perth. Open to architects practising in Scotland. Premiums: £100 and £50. Mr. James D. Cairns, assessor. Apply Mr. R. Martin Bates, Education Offices, Perth. Deposit £1 1s.....		July 23 .. Jan 3, 1927
Town Hall Extensions and Public Library Building, Manchester, for the Corporation. Architects of British nationality invited to submit designs in preliminary competition. Applications for conditions should be made to Mr. P. M. Heath, Town Clerk, Town Hall, Manchester, accompanied by deposit of £1 1s., returnable on receipt of *bona fide* designs. Assessors, Messrs. T. R. Milburn, Robert Atkinson, and Ralph Knott, FF.R.I.B.A.		Aug. 20 .. Jan. 3
Plan for construction of Conference Hall, for League of Nations, Geneva. International Competition, Sir John Burnet being British representative on Jury of Assessors.		July 23 .. Jan. 25
Edwin Austin Abbey Memorial Scholarships for Mural Painting. Two Minor Scholarships of £125 a year each, and one Major Scholarship of £250 a year. Candidates must not be over 25 and 27 years of age for the respective Scholarships on December 31 preceding the competition. Apply Secretary, Edwin Austin Abbey Memorial Scholarships, Chelsea Lodge, 42, Tite-street, London S.W.3		Feb. 15 and June 11 .. July 1
Swimming Pool, Morecambe. Prizes: £100, £50, and £25, and three other awards of £10 each. Apply Mr. J. Entwistle, Town Clerk, by October 30 ..		Oct. 15 .. —
Civic Improvements, Birmingham, around Hall of Memory. International Competition. Premiums of £1,000 will be awarded author of design placed first. Further sum, not exceeding £1,000, will be divided among other competitors according to assessor's recommendation. Scheme includes: Municipal Offices, to contain City Hall, Public Library, and Lord Mayor's Mansion House. Mr. H. V. Lanchester, F.R.I.B.A., assessor. Apply Mr. Herbert H. Humphries, City Engineer, Council House, Birmingham..		Oct. 15 .. —

Warwick War Memorial.

Messrs. Batemans, Architects.

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Registration.

SIR,—Mr. Horace R. Appelbee would, in my opinion, have raised a point of much more general interest and originality if he had substituted for the shop-soiled query, "Why should architects be registered?" the question, "Why are all architects not registered?" The vast majority of architects of repute in this country are registered as members of the R.I.B.A. or of its allied societies, and this process of registration is continually going on.

These thousands of architects must have good reasons for submitting themselves voluntarily to professional discipline and control, there being no obligation upon them to do so, and they cannot fairly be charged with indifference to the principle of a proposal to give all architects an opportunity of coming on to a statutory register, if they so desire. Mr. Appelbee, no doubt, has his personal reasons for remaining "unattached" and some valid objections to the principle of Registration as applied to architects. If so, it would be helpful if he would state them.

C. MCARTHUR BUTLER,
Secretary of the R.I.B.A. Registration Committee.

Charing Cross Station and Bridge.

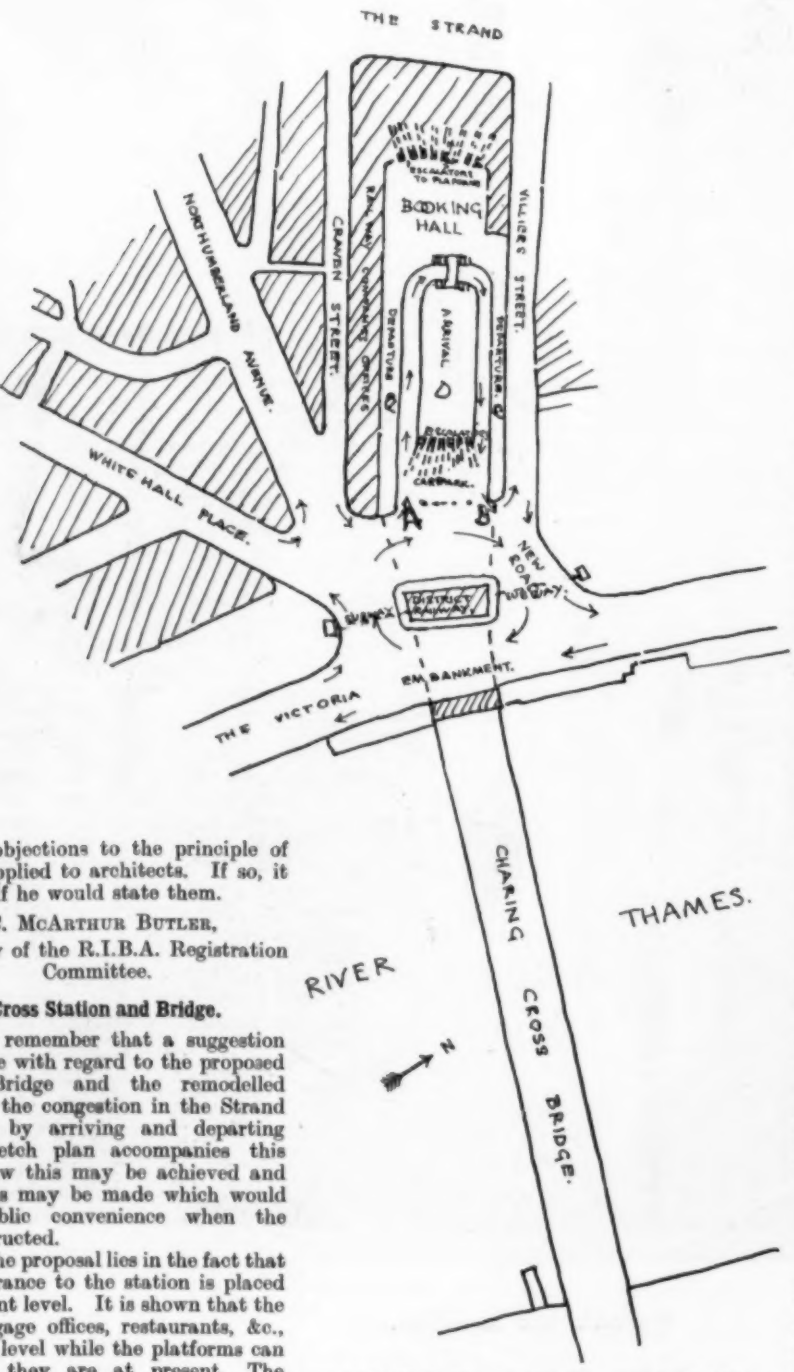
SIR,—I do not remember that a suggestion has yet been made with regard to the proposed Charing Cross Bridge and the remodelled station for easing the congestion in the Strand which is caused by arriving and departing taxi cabs. A sketch plan accompanies this letter to show how this may be achieved and how other changes may be made which would give greater public convenience when the station is reconstructed.

The essence of the proposal lies in the fact that the suggested entrance to the station is placed at the Embankment level. It is shown that the booking hall, luggage offices, restaurants, &c., can all be at this level while the platforms can be above where they are at present. The platforms would be reached by moving stairways from the lower level, and the roadway approaching the new bridge, coming over the Strand from the north, could be above the railway itself, and then go southwards on an upper deck of the railway bridge across the river. This arrangement makes it possible to lengthen the platforms as far as the pavement of the Strand.

The second important feature of the scheme is the formation of a circus under the land spans of the bridge. To secure this improvement the entrances to the District Railway station would be moved to form the hub of the circus. Villiers-street could be widened and would give directly at its south end on to the Embankment. The entrance for vehicles to the Southern Railway station would be at the point marked A on the plan and the exit at B. Both would be from the circus, and they would be connected within the low level station hall by a loop roadway. The pavements outside this loop roadway are arranged to lead to the moving stairways which discharge the passengers at the west end of the platforms above. From the other end of these platforms passengers arriving by train in the station would descend by other moving stairways to the island space within the loop roadway. From thence they would leave the station by taxi or by tunnels directly connected with the tube railways.

The houses on the north side of Craven-street would be replaced by the offices, restaurants, &c., belonging to the Southern Railway, and the opportunity to widen this street could then be taken. Further, while this work is being done it would be possible to provide a space for parking motor cars. The author of this outline scheme leaves it to his readers to fill out the many less important conveniences for which it gives good opportunity.

JOHN E. M. MACGREGOR, A.R.I.B.A.



Charing Cross Station and Bridge.
A Suggestion by MR. JOHN E. M. MACGREGOR, A.R.I.B.A.

"Fire Traps."

SIR,—Cannot something be done to prevent a recurrence of "fire traps"? It frequently occurs that people are faced with the dread alternative of leaping into space or being burned alive. I am a layman in these matters and look to the building trades to find ways of avoiding this terrible contingency. Something might be done by providing intercommunicating doors on top stories of high houses in rows or terraces, or rope ladders, or other means.

JOHN C. ALLEN.

CHARING CROSS BRIDGE

SIR REGINALD BLOMFIELD, R.A., F.S.A., giving evidence on Charing Cross Bridge before the Royal Commission on Cross-River Traffic, said that, in collaboration with Sir Aston Webb and Mr. John Burns, he had written articles advocating a new bridge and roadway passing over much of the Southern Railway property at Charing Cross, but the suggestions were headed off by the vague estimates of the enormous sums (£15,000,000, for example) required to compensate the railway company and carry out the work. In 1925 he came to the conclusion that this obstacle of cost was insurmountable, and that the only way to obtain a new bridge at Charing Cross was to place it on a site clear of the railway property. He had, therefore, prepared a scheme for a new roadway starting on the south-east side from the junction of York-road and Stamford-street with Waterloo Bridge-road and crossing the river at the same height as Waterloo Bridge, landing near the Cavell Monument, and giving access north, north-west, and west by St. Martin's-lane, Charing Cross-road, and through Leicester-square to Regent-street. This scheme did away with the necessity to interfere with various buildings, and there would be a great opportunity for fine design in the treatment of the vista and foreshore between the new bridge and Waterloo Bridge. The "two-decker" bridge scheme for Charing Cross would be an outrage on the river scenery, cutting the river in half and blocking out the glorious view one way or the other.

Mr. Adam Hunter, chief engineer to Sir William Arrol & Co. since 1906, who gave evidence on behalf of the London County Council as to the condition of Waterloo Bridge, said he was strongly of opinion that if the present bridge was to be restored, it should be removed entirely and rebuilt on new foundations.

Saving Frensham Ponds.

A petition signed by nearly 2,000 persons, and supported by Mr. Guy Dawber, the President of the R.I.B.A., and the Principal of the Royal College of Arts, has been drawn up for presentation to the Ministry of Health in protest against the proposed construction of sewage works near Frensham Ponds, the opposition of the ratepayers having failed to induce the local Council to abandon the scheme.

Wednesbury War Memorial and Garden of Rest: View showing Centre Obelisk and back wall Memorial.

Messrs. Batemans, Architects.

At the first meeting in the present session of the Architectural Association, held on Monday evening at 35, Bedford-square, W.C.1, Mr. W. H. Ansell (Vice-President) occupied the chair.

New Members.

After the minutes of the preceding meeting had been approved, the Chairman announced that there were 65 nominations for membership, and the following new members were elected:—

C. H. Lobban.	H. L. Kelly.
G. Warner.	A. R. Welby.
H. Bocock.	A. May.
C. N. Wallnutt.	G. L. Thompson.

ARCHITECTURAL PRACTICE IN LONDON.

The President (Mr. J. Alan Slater, M.A., F.R.I.B.A.), then gave the inaugural address entitled "Some Notes on the Practice of Architecture in London," which, he said, he had specially prepared with the object of pointing out to the students some of the methods and ideas he had found useful in his own practice. The address dealt with the carrying out of a building from the first interview with the client to the final settlement of accounts, and touched upon the duties of all parties concerned.

Clients varied as much as the colours in Rude's colour circle. There was what he might call the absentee client, whom the architect saw when he gave his instructions, who left the whole design and execution of the job in his hands, and who was only met again when the whole thing was finished and it came to paying the bill. Then there was the other extreme—the ever-present client—who sat on the job, literally and metaphorically, and who needed a deal of handling and much patience. The client he would speak of was neither of these, but the average man with pretty clear views as to what he wanted, though perhaps not very much capacity for explaining his wishes; with definite ideas as to cost and time, and somewhat less definite ideas on questions of taste and comparative values. What were the architect's relations with him? First and foremost they must establish a state of complete confidence with each other, and once that was done the whole problem was solved. For instance, as far as costs were concerned, it was vital for the architect to know what his client was willing to spend, and once confidence was established the client would actually tell him the truth and not mentally reserve 25 per cent. for extras, which it was one of the architect's prime duties not to incur.

When it came to matters of taste and appearance, the architect should try to find out what were the absolute essentials in the client's mind, and on these points meet him, if possible, at least nearly all the way. After all, it was his building and he paid for it. But when it came to matters upon which he was confessedly ignorant or indefinite, granted that aforementioned mutual confidence, the architect should be able to get what he wanted.

It was always extraordinarily difficult, when ideas clashed, for the architect to win on the question of colour. In matters connected with shape the client seldom interfered. For instance, he never criticised the contour of a moulding or the proportion of a void in a solid. He left that to his technical adviser, who, he admitted, possessed superior knowledge. But when it came to the question of colour—obviously just as essential from the architect's point of view for carrying out his idea—then the client very often maintained stoutly that he knew what he wanted and would have it.

Mutual confidence could best be obtained by complete frankness coupled with tact. If things went wrong, or difficulties arose, always let the client know and give him the opportunity of helping to solve the problem. He would nearly always appreciate it. When there was a radical difference of opinion upon matters of taste, allow him wherever possible by some form of compromise to get at least part of his own way.

In the relations of the architect with the various building authorities who had powers of control over building in the Metropolitan area, at once there appeared the bogey of the London Building Act, with all its amendments and schedules, and the various Acts of Parliament which gave controlling powers to the L.C.C. He did not pretend to have mastered all the intricacies of these Acts, and his experience had been that the architect need really only be concerned with two main headings—the Building Act of 1894 with its two Amendments of 1905 and 1908, and the L.C.C. General Powers Act of 1909. Nearly all large buildings had to conform to the provisions of one of these two, and the consent of the L.C.C., as being the body which administered these Acts, had to be obtained to all plans.

It was therefore essential that the architect should make up his mind at an early stage under the provisions of which Act he was going to erect his building; and as most large modern commercial buildings would be built under the 1909 Act, which regulated steel-frame buildings, they would have to conform to the provisions of the 1905 Amendment Act with regard to means of escape, and to the 1908 Amendment Act if the building was of more than 250,000 cubic feet.

As far as the architect's relations with the authorities were concerned, his very strong opinion was that it was most advisable to consult them at an early stage in the design. He had invariably found them most courteous and kind, most willing to accept arguments when special concessions were asked for, and very willing to assist in overcoming difficulties in the way of conforming to the requirements of the law. Here, again, the personal touch was most desirable, and again the architect had opportunities of meeting his fellow-men and dealing with them with tact as well as persuasion to achieve his ends. If by any chance differences of opinion occurred with the authorities, there was always an appeal to the Tribunal of Appeal of the London Building Act, consisting of an architect, a surveyor, and a barrister.

The District Surveyor's function was to interpret and administer the Act; he had little discretionary powers, and in many cases was debarred from making decisions himself, in which cases applications had to be made to the L.C.C. Here again his experience was that personal intercourse with the Surveyor concerned solved many problems, and here again frankness had its reward.

The laws of Rights of Light were almost unanimously regarded as most inequitable, and there was a strong Committee at work trying to produce some scheme whereby the laws might be modified or simplified, and so get rid of what was a very real bogey for a building owner and his architect when they realised that they were surrounded by unscrupulous sharks who were determined to obtain their pound of flesh from the enterprise of their neighbour.

The other point besides Light where the adjoining owner came in was in the question of party walls. To the uninitiated or semi-initiated this might assume dreadfully fantastic shapes. The procedure, however, was really fairly simple. Send the party wall notices and get into touch with the adjoining owner's surveyor as soon as possible. Be perfectly frank with him and show him that you were not out to "do him down," and the question of settling up the party wall award should not be a matter of great difficulty if both parties were reasonable. One small tip in case they were not certain of it: when it was a question of paying or being paid for the use of a party wall not previously used by the client, the bill must be made out on the schedule of prices obtaining when the party wall was built, and not on current prices. This, after considerable discussion, had been definitely settled by the Practice Committee of the R.I.B.A.

Ninety-nine out of every hundred contracts were let to the lowest of a selected list of contractors at a lump-sum price, and from a financial point of view this was probably the best method of arriving at a price, though there were certain possible objections to it. The first objection was that it was patent to any architect of experience that, when such a list was made out and application for tenders was made, in a very few days each contractor could if he wished have the names of his competitors on his office desk. Second, it was almost certain that out of a list of twelve not more than four really wanted the job. Either they were too busy or it was not the type of work they liked. For one reason or another they would really only get 30 per cent. of genuine tenders; the others merely put in a price which they knew (from inquiry very often) would not get the job. Third, they ran a risk of getting a badly-cut price, which was no good to anyone. If a really large job were very much cut there were endless troubles which anyone could visualise—the probability of bad work, the possibility of bankruptcy, and the general atmosphere of unhappiness throughout. On a large job he recently persuaded his client to go to a contractor he knew well and trusted and allow him to price the bill and submit it to the quantity surveyor and himself: the result was, no doubt, that he paid 3 per cent. or 4 per cent. more than he would have done if the contract had gone out to tender, but he had never known a happier job.

It must be remembered that in any event the contractor was practically financing the majority of the work until the final certificate was issued, when his profit came in for the first time. He had to meet the continuous cash outlay of weekly wages, and therefore certificates, when the architect was satisfied that they were due, should never be delayed, as it frequently put the builder into an unnecessarily awkward financial position.

If only a certain class of builders were asked to tender, firms of first-class reputation, the same principle should be adopted with regard to the specialists who were to become sub-contractors to the builder, and upon whose good workmanship, business-like methods and general integrity the builder largely relied. It was unfair to insist upon the builder employing an inferior firm simply to obtain a cut price when he was responsible for the general contract.

In these days of bustle and large ground rents, it was naturally most important to complete a job at the earliest possible moment, and within limits there was no objection to speed. Certain trades, of course, could not be rushed with impunity, but speed depended very largely on organisation, and here the architect could help. He had found that a fortnightly meeting, at the architect's office, of the contractor and all the sub-contractors employed on the job at the moment was very helpful. Programmes of work could be discussed, notes taken of individual promises, and also individual difficulties which very likely depended upon the work of other firms, and a schedule of progress arrived at which if not adhered to, could be inquired into at the

next meeting. He had found it was a considerable stimulus towards carrying out a programme if the representative of the firm in question knew that he would have to confess to failure and give his reasons before other contractors similarly placed. The same old excuses sounded fairly thin in a room full of men who knew exactly the real state of affairs. Super hustle was bad, but everyone liked a quick turnover, and if it could be obtained by good organisation it was invaluable.

Discussion.

A vote of thanks to the lecturer was moved by MR. SILVESTER SULLIVAN, F.R.I.B.A., and seconded by MR. STANLEY HAMP, F.R.I.B.A., who endorsed the lecturer's remarks as to the necessity of employing specialist consultants to assist the architect of a modern building, and also on other points.

MR. LAWRENCE GOTCH expressed the opinion that the practical side of architecture did not receive sufficient attention in the architectural schools, and said that it generally took several years after leaving school for young architects to get down to practical work. He advocated a closer discrimination in accepting students in order to eliminate candidates who did not show any particular aptitude for the work, and mentioned that a very large number of students on whom a great deal of money had been spent did not remain in the profession after they left school.

MR. LAWTON FORD, District Surveyor for St. Marylebone, said there were something like twenty Acts of Parliament governing building in London, the principal Act being no less than thirty-two years old, which, having regard to the altered methods of building, should be as dead as Queen Anne. There were, of course, later Acts—the 1905 Act (Means of Escape), the 1908 Act (Cubical Capacity), and the 1909 Act (Steel-Frame Buildings)—but these and other amending Acts made confusion confounded, and he would urge all architects to agitate for a consolidation of them and the embodying therein of the innumerable and separate by-laws and regulations. Some time ago he was in the Law Courts, and when he was about to give evidence and the judge asked him whether he understood the Building Acts he had to admit that while he knew a good deal about them he did not pretend to understand them.

Under the principal Act, the 1894 Act, architects should bear in mind that where a building exceeded 25 squares in superficial area and was in different occupations they must have fire-resisting floors and staircases; and also that where a building exceeded 10 squares in superficial area and was partly used for trade and partly as a dwelling-house, the trade portion must be separated from the dwelling-house by a fire-resisting floor and must also have a fire-resisting enclosed staircase to the dwelling-house portion. Under the 1908 Act certain other buildings were measured by cube (not superficial area), and the cubical capacity of a warehouse building or a building used for trade must not exceed 250,000 ft., and this Act governed occupation generally. One of the greatest crimes an architect could commit was to knock an opening in a party wall and connect up buildings which were in different occupations.

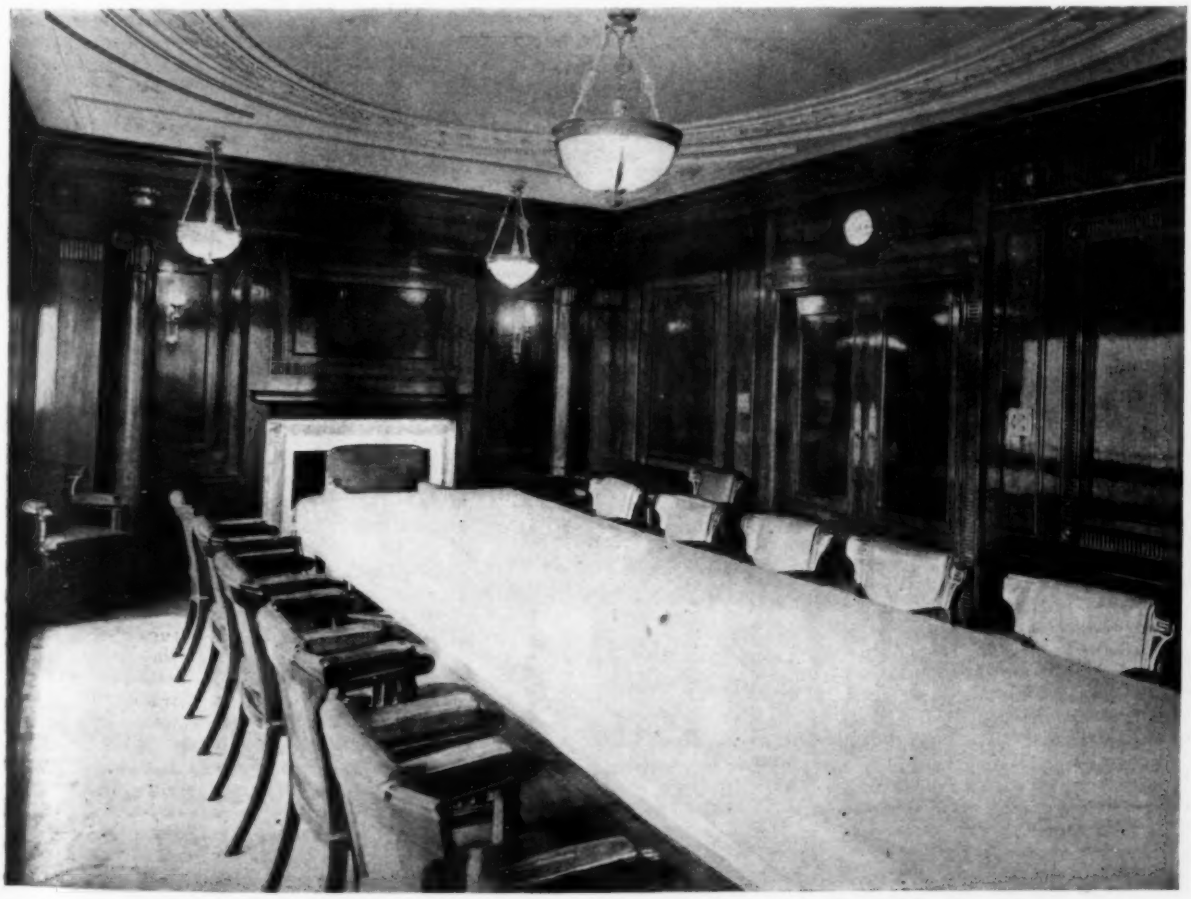
The 1909 Act dealt with steel-frame buildings, and permitted 14-in. or 9-in. brick panelling to the external walls, but not to party walls, with a consequent saving of space, but it must be remembered that that type of building was unsuitable for hotels, residential flats, etc., where it was advisable to have a sound-resisting structure. In this Act the stresses and strains laid down must be followed, and the reinforced concrete regulations were made under that Act, but while the Act itself specified certain stresses as the limit, the reinforced concrete regulations sometimes gave others. This Act was probably the most technical Act ever found on a statute book, and one needed to be an engineer in order to understand it; in fact, one needed to be familiar with all the empirical formulæ.

In connection with the 1894 Act, when pulling down an old building an architect must seriously consider whether the plans of such had been certified by the District Surveyor, either as to irregular open space at the rear or prescribed distance from the centre of the roadway, for the plans could not be certified after the building was pulled down; and if this point were forgotten the client would lose the right to build to the old lines and a case might be brought against the architect for negligence.

The District Surveyor was, perhaps, a bit of a building policeman, but he would generally be most happy to look at architects' plans and give advice, for he realised that the building laws were next to impossible to understand. It was also advisable to get the Medical Officer of Health to look at the plans in respect of areas of lavatories, etc., and it was useful to remember that the District Surveyor usually knew the kinds of soil to be met with at varying depths.

He would like to correct a statement made by the lecturer to the effect that the L.C.C. administered the Act and saw that a new building was erected so that it would not fall down. It was the District Surveyor who was responsible. True, under section 7 of the 1905 Act the Council considered the drawings and drew up conditions, but even then the District Surveyor saw that they were complied with. Generally speaking, it was only when an architect wished to depart from the Acts that he need approach the Council.

In replying to points raised in the discussion, the lecturer said he quite realised that the District Surveyor administered the Building Acts in nine cases out of ten, but if it was desired to do something outside the Acts an appeal had to be made to the Council. For instance, according to the Act a steel-frame column 11 in. thick near an external wall had to be covered with 4 in. of concrete; on this point he had recently been told by Mr. Ford to enclose such columns with 4 in. of concrete, but on appeal to the Council he was permitted to use 2 in. of cover only.



New Premises of the Automobile Association, New Coventry Street, W.: Committee Room.

MR. ANDREW MATHER, L.R.I.B.A., Architect.

LOUTHERBOURG'S TOMB AT OLD CHISWICK AND ITS RESTORATION

In 1812, nearly 50 years after Hogarth had been laid to rest in Old Chiswick Churchyard, Philip James de Loutherbourg, R.A., was buried there in a tomb designed by Sir John Soane, R.A. This excellent example of Soane's work has for long been neglected and almost unnoticed. The late Mr. Warwick Draper, shortly before his death, removed a mass of ivy which more or less covered the monument. It was then found that the wrought-iron railings, so laid bare, were in danger of rotting from rust.

Mr. Maurice B. Adams, F.R.I.B.A., undertook to rescue the tomb from ruin with the help of two or three friends. But one of these, Professor W. R. Lethaby, suggested that the number of subscribers should be enlarged, in the hope that wider publicity would induce others elsewhere to renovate equally important monuments now neglected. This scheme has been carried into effect.

Under the direction of Mr. Adams as honorary architect, the ironwork has been repaired, the masonry has been thoroughly washed down and all remnants of ivy fibre removed, and the inscriptions are being recut and recoloured. The principal of these inscriptions concern Loutherbourg himself, and his widow.

Following is the list of subscribers to the work of restoration :—

Maurice B. Adams, F.R.I.B.A., H. Percy Adams, F.R.I.B.A., Henry V. Ashley, F.R.I.B.A., Sir Frank Baines, F.R.I.B.A., Director H.M.O.W., Sir Herbert Baker, A.R.A., Sir John Burnet, R.A., Sir Reginald Blomfield, R.A., W. Talbot Brown, F.R.I.B.A., Sir T. Edwin Cooper, F.R.I.B.A., Alfred W. S. Cross, M.A., P-V-P.R.I.B.A., Arthur J. Davis, F.R.I.B.A., E. Guy Dawber, P.R.I.B.A., Sir Frank Dicksee, P.R.A., M. P. Burke Downing, V-P.R.I.B.A., Sir Banister F. Fletcher, V-P.R.I.B.A., Henry M. Fletcher, F.R.I.B.A., Sir George Frampton, R.A., T. Edwards Forster, K.C., J. Alfred Gotch, P-P.R.I.B.A., W. Curtis Green, A.R.A., H. S. Goodhart-Rendel, F.R.I.B.A., E. Stanley Hall, F.R.I.B.A., Cecil G. Hare (Bodley & Hare), E. Vincent Harris, F.R.I.B.A., Sir W. Goscombe John, R.A., Arthur Keen, V-P.R.I.B.A., Professor Lethaby, Sir Edwin Lutyens, R.A., Arnold Mitchell, F.R.I.B.A., Lt.-Col. W. Grant Morden, M.P., Sir Charles Nicholson, F.R.I.B.A., A. W. Powys, A.R.I.B.A., Andrew N. Prentice, F.R.I.B.A., Professor Beresford Pite, F.R.I.B.A., Professor C. H. Reilly, F.R.I.B.A., Soane Museum Trustees, per A. T. Bolton, F.R.I.B.A., Sir Giles Gilbert Scott, R.A., Sir John W. Simpson, P-P.R.I.B.A., J. Alan Slater, F.R.I.B.A., H. D. Searles Wood, F.R.I.B.A., Sir Henry Tanner, F.R.I.B.A., Walter Tapper, A.R.A., Arthur H. Ryan Tenison, F.R.I.B.A., Sir A. Brumwell Thomas, F.R.I.B.A., Sir Aston Webb, P-P.R.A., William Woodward, F.R.I.B.A., Dr. Percy Scott Worthington, V-P.R.I.B.A.

The ironwork renovation was done by Walter Beavan, of Acton Green, and R. Ayres, smith, of Hammersmith. The lettering is by Messrs. Fennings, of Hammersmith, their craftsman being Mr. A. E. Dunning.

Following is the chief inscription on the Memorial :—

THIS MONUMENT
IS DEDICATED TO THE MEMORY OF

PHILIP JAMES DE LOUTHERBOURG, ESQ., R.A.,
WHO WAS BORN AT STRASBOURG, IN ALSACE,
NOVEMBER 1, 1740, WAS ELECTED A MEMBER
OF THE ROYAL ACADEMY, LONDON,
NOVEMBER 28, 1781, AND DEPARTED
THIS LIFE AT HAMMERSMITH
TERRACE, MARCH 11, 1812,
AGED 72 YEARS,
WITH TALENTS BRILLIANT AND SUPER-EMINENT.

AS AN ARTIST
HE UNITED THE STILL MORE ENVIABLE ENDOWMENTS
OF A CULTIVATED, ENLARGED AND ELEGANT MIND
ADDING TO BOTH, THOSE SUPERIOR QUALITIES OF THE
HEART WHICH ENTITLED HIM
AS A MAN AND AS A CHRISTIAN
TO THE CORDIAL RESPECT OF THE WISE AND GOOD.

IN HIM
SCIENCE WAS ASSOCIATED WITH FAITH
PIETY WITH LIBERALITY
VIRTUE WITH SUAVITY OF MANNERS
AND THE RATIONAL USE OF T IS WORLD
WITH THE ENOBLING HOPE OF A WORLD TO COME.

A DEATHLESS FAME WILL RECORD HIS PROFESSIONAL
EXCELLENCE, BUT TO THE HAND OF FRIENDSHIP
BELONGS THE OFFICE OF SHOWING ON HIS
TOMB THOSE MORAL FLOWERS WHICH
DISPLAYED THEMSELVES IN HIS LIFE
AND WHICH RENDERED HIM
ESTIMABLE AS A SOCIAL
BEING.

Here Loutherbourg I repose thy laur'd head,
While art is cheris'd thou cans't ne'er be dead;
Salvator, Poussin, Claude, thy skill combines,
And beauteous nature lives in thy designs.—

—C. L. M.

OBITUARY

The Late Alfred Hills Stoner.

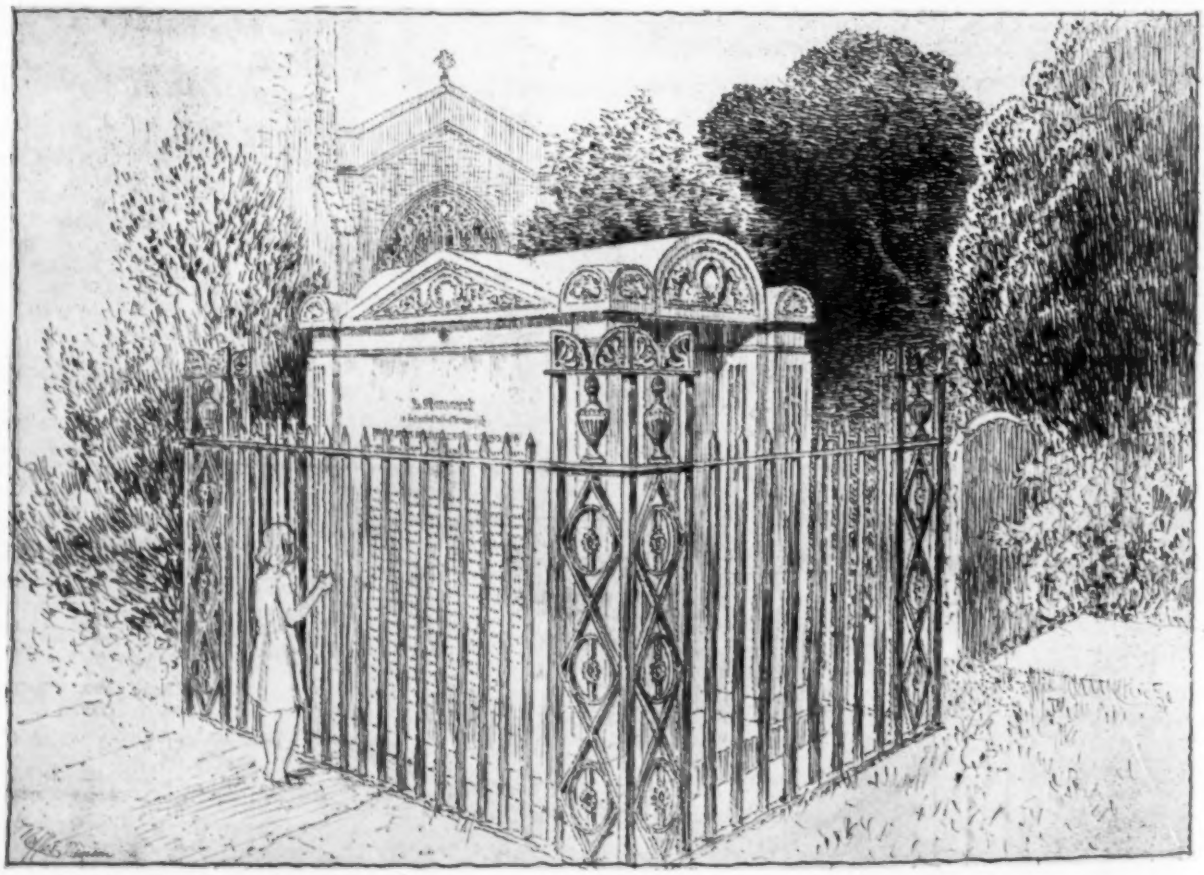
Alfred H. Stoner, F.S.I., whose sudden and untimely death was announced on Monday week, was the principal partner in an old-established firm of quantity surveyors, well known to all who are in any way connected with important building operations, more particularly in the City and West End. His death will be widely regretted.

Representing the third generation of a family distinguished for unobtrusive and efficient service, he belonged to a profession which may not attract much public notice, but which more and more has become essential to building in all its modern complexity. His life typifies, happily, the best of those who, by unceasing, uncomplaining, and well-directed effort, far transcend the personality of the multitudes around them, and, by reason of their efficiency, not only make others dependent upon them, but themselves become almost irreplaceable when they go. At a time when destructive critics dominate and when general disturbance is rife, such men withstanding evil influences pursue an even course as only men of character successfully can do. By the complete and elaborate knowledge he possessed he was able, when divergent opinions arose, to demonstrate to architect and builder alike his reasonableness and the equity of his conclusions. So convincing were his figures that but seldom were differences allowed to develop into serious disputes or reach the exasperating stage that is so productive of litigation.

Alfred Stoner died as he lived. Apprised of malignant illness, and condemned to an early death at the height of a successful career, he arranged his affairs without a murmur of complaint or any evident weakening of his fine moral fibre. He passed away an example of the heroism that, though undoubtedly instinct in his nature, was matured by dutiful and earnest work.

An Architect's Baronetcy.

Mr. Frank Stapley, an architect, a member of the Melbourne City Council and a former Lord Mayor, has succeeded to a baronetcy on the death of Sir Harry Stapley.



From a Sketch contributed by Mr. T. Raffles Davison.

Loutherbourg's Tomb at Old Chiswick.

Designed by SIR JOHN SOANE, R.A.

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ILLUSTRATIONS

Colonial Architecture.

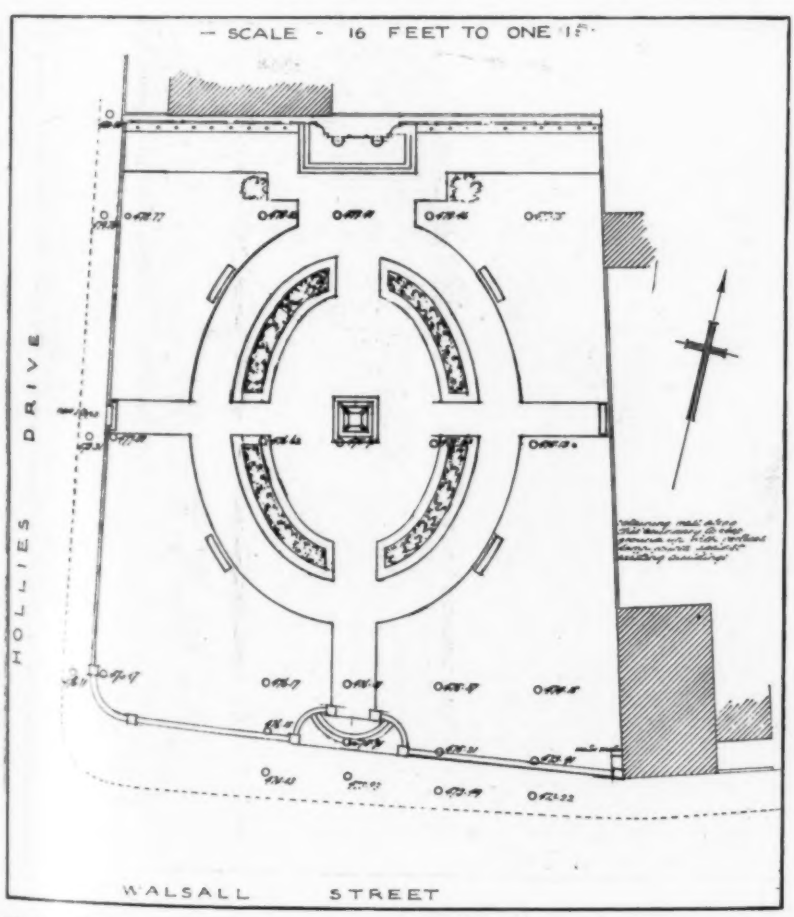
From the Exhibition of Dominion and Colonial Architecture now being held at the R.I.B.A., we illustrate this week the following works:—Chemistry Building, University of Saskatchewan (Mr. David R. Brown, architect); University of Sydney (Professor Leslie Wilkinson, F.R.I.B.A., architect); the Bank of Nova Scotia Building, Ottawa (Mr. John M. Lyle, architect); Shop Building for the Thornton-Smith Company, Toronto (Mr. John M. Lyle, architect); Chateau Frontenac, Quebec (Messrs. Maxwell & Pitts, architects); and Main Entrance Hall of Parliament Buildings, Ottawa (Mr. John A. Pearson, architect).

New Headquarters of the Automobile Association.

These new offices have just been completed in New Coventry-street. There were eight floors above the basement and the main reception room on the ground floor. The main reception room has a circular entrance hall, formed with marble columns having bronze caps and bases. The floor is also in marble. The walls are covered in walnut, with burr walnut panels; the entrance doors are of the same material, with bronze grilles. The window enclosures are in bronze. The interior and furniture are designed in harmony with the general scheme of decoration. Over one end of the room is a gallery, providing extra floor space. On the first floor is another large reception room, in which foreign touring inquiries and requirements are dealt with. The second floor comprises the secretary's offices, propaganda department, cash department, accountants' and auditors' departments, and the committee room. The design of this room is Neo-Grec in feeling, and the walls are covered with Ancona walnut; the raised dado and upper panels being covered with burr walnut veneers. The same material is used for the columns, entablatures and cornices. The third floor is occupied by the engineering department, and the main portion of the fourth floor is reserved for the legal department, which has three consultation rooms. The deputy secretary's offices and the departments concerned with appointed hotels, appointed garages, etc., are on this floor. The fifth floor is entirely occupied by the foreign touring department, and the sixth floor by the home touring department. The seventh floor is devoted almost exclusively to the road department, while the eighth and top floor is the central registry, etc. The basement is used for storage, etc. The building accommodates a staff of 300. There are two passenger lifts—one for members and one for staff. There is also a service lift.

The constructional work was carried out to the design and under the supervision of Mr. Andrew Mather, L.R.I.B.A.

The general contractors were Messrs. Arthur Vigor, Ltd., and following is a list of sub-contractors:—Archer & Co. (carpets), British Vacuum Cleaner Co. (vacuum cleaning plant), Bath & Portland Stone Firms, Ltd. (Portland stone work), John Bolding & Sons (sanitary fittings), Fredk. Braby & Co. (copper cresting, etc.), Comyn Ching & Co. (bronze work), Walter Cassey, Ltd. (ironmongery), Crittall Mfg. Co. (bronze windows), Carron Co. (ironwork, grates, etc.), Carter & Co. (tiling), Dictograph Co. (internal telephones), Doulton & Co. (sanitary fittings), Jos. Ebner & Co. (wood block flooring), Thomas Faldo & Co. (asphalt), Farmer & Brindley (marble work), Fenning & Co. (marble work), J. W. Gray & Son (lightning conductors), Gas, Light & Coke Co. (gas supplies), Haywards, Ltd. (pavement lights), G. Jackson & Sons (decorations, plasterwork, etc.), George Johnson & Co. (bank lift), Mann, Egerton & Co. (electrical work), W. Morris (Westminster Guild) Co. (bronze doors, windows, etc.), S. Mulliner, Ltd. (heating installation), Thomas Potterton & Co. (bank heating installation), Reliance Telephone Co. (internal telephones), Rust's Tile Co. (tiling), Synchronome Clock Co. (clocks), Smith Walker, Ltd. (constructional steelwork), Waygood Otis, Ltd. (lifts).



Wednesbury War Memorial and Peace Garden of Rest: Lay-out Plan.

MESSRS. BATEMANS, Architects.

Galleries of the Royal Society of British Artists.

These galleries, which are to be opened for the private view of the Autumn Exhibition on Saturday, October 30, were originally built in 1823 by the then Society (which was given a Royal Charter), and were opened in 1824 by H.R.H. the Duke of Sussex. The remodelling of the galleries above premises occupied by other leaseholders presented many difficulties. They are wholly on the first floor, and are situated on a cramped site entirely covered with buildings. The large central gallery has been practically rebuilt, the walls having been taken down and re-erected, and segmental steel trusses of 3 tons weight, and with a span of 40 ft., were hoisted in position without serious difficulty. The whole work was completed in the space of 3½ months. The design of the galleries is based on one of the modern rooms at the National Gallery of British Art. The general adaptation of this was decided upon by the Council of the Society, who investigated the merits of many different projects before coming to this decision, it being resolved that any system of top-side lighting would not, in all the circumstances, fulfil the requirements, owing to the use of the galleries for various functions, necessitating height and space, which the restricted pitch of top-side lighting with its central unlit aisle prohibits.

The general contractors for the work were the Canonbury Construction Company, Ltd., and the sub-contractors were:—The Aston Construction Company (steelwork), Haywards, Ltd. (roof glazing and steel toplights), Turpins (parquet flooring), Mr. Arthur May (fibrous plaster), Perry & Co. (electrical work), Donald Bros. (wall hangings).

The architects were Messrs. W. E. Riley & Glanfield, FF.R.I.B.A., of 6, Raymond Buildings, Gray's Inn, W.C., and the quantity surveyors Messrs. Horace W. Langdon & Partners.

Warwick War Memorial.

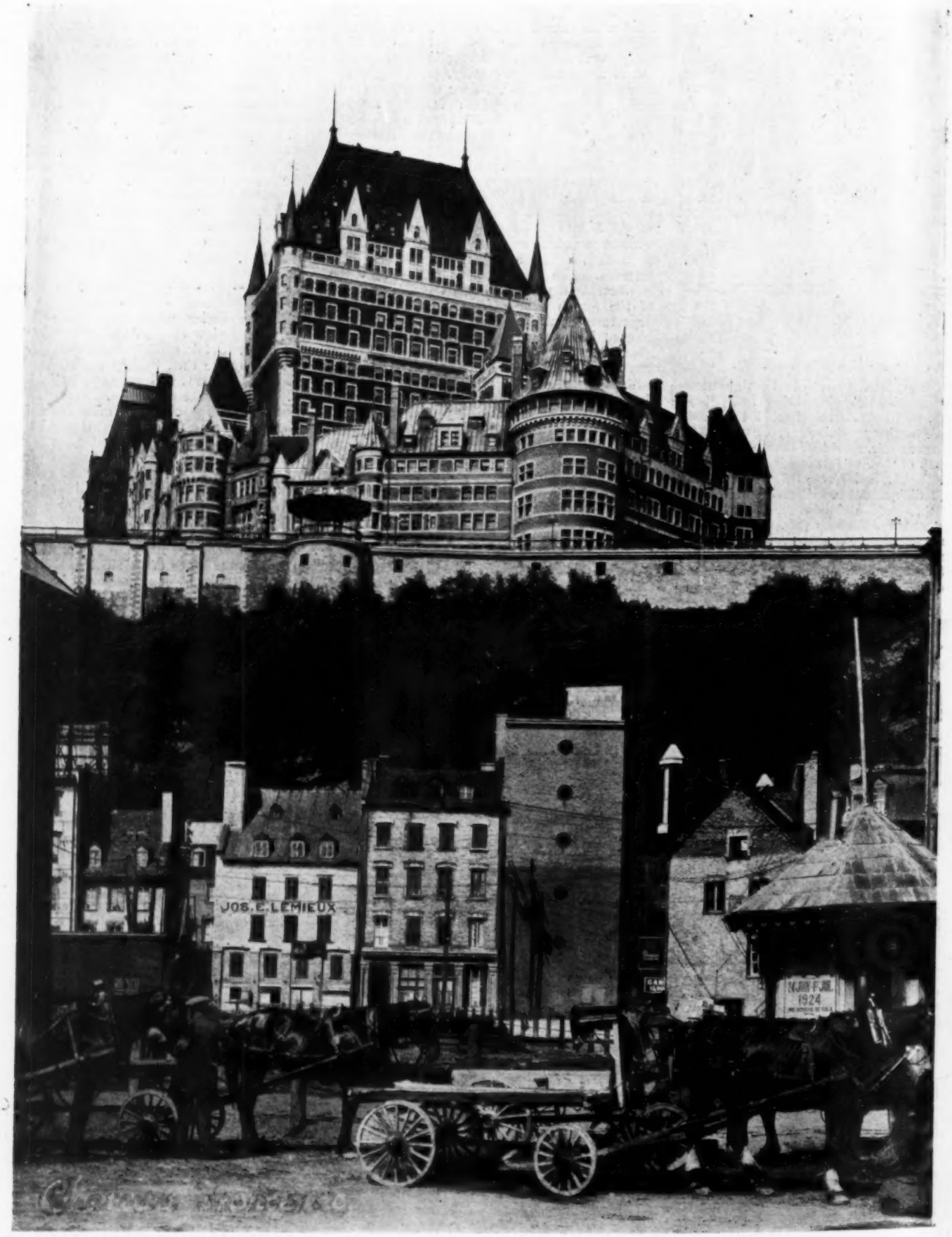
The restricted space where the footpath widens by the old graveyard of St. Mary's Church dominated this design, which is small on plan but lofty in elevation. The work was executed in Portland stone by Messrs. Bridgeman & Sons, of Lichfield. There are eight shields bearing the arms of the principal towns of the county, where the great recruiting centres were situated.

Messrs. Batemans, of Birmingham, are the architects.

Wednesbury War Memorial and Peace Garden of Rest.

This garden is a combined achievement of the civic authorities and the subscribers, forming an oasis in a busy Black Country town. Messrs. Streather & Sons, of Four Oaks, Sutton Coldfield, carried out the fence, walling and garden lay-out; Messrs. Bridgeman & Sons, of Lichfield, executing the main memorial and altar on the back wall and the central obelisk, both in Portland stone.

Messrs. Batemans, of Birmingham, are the architects.



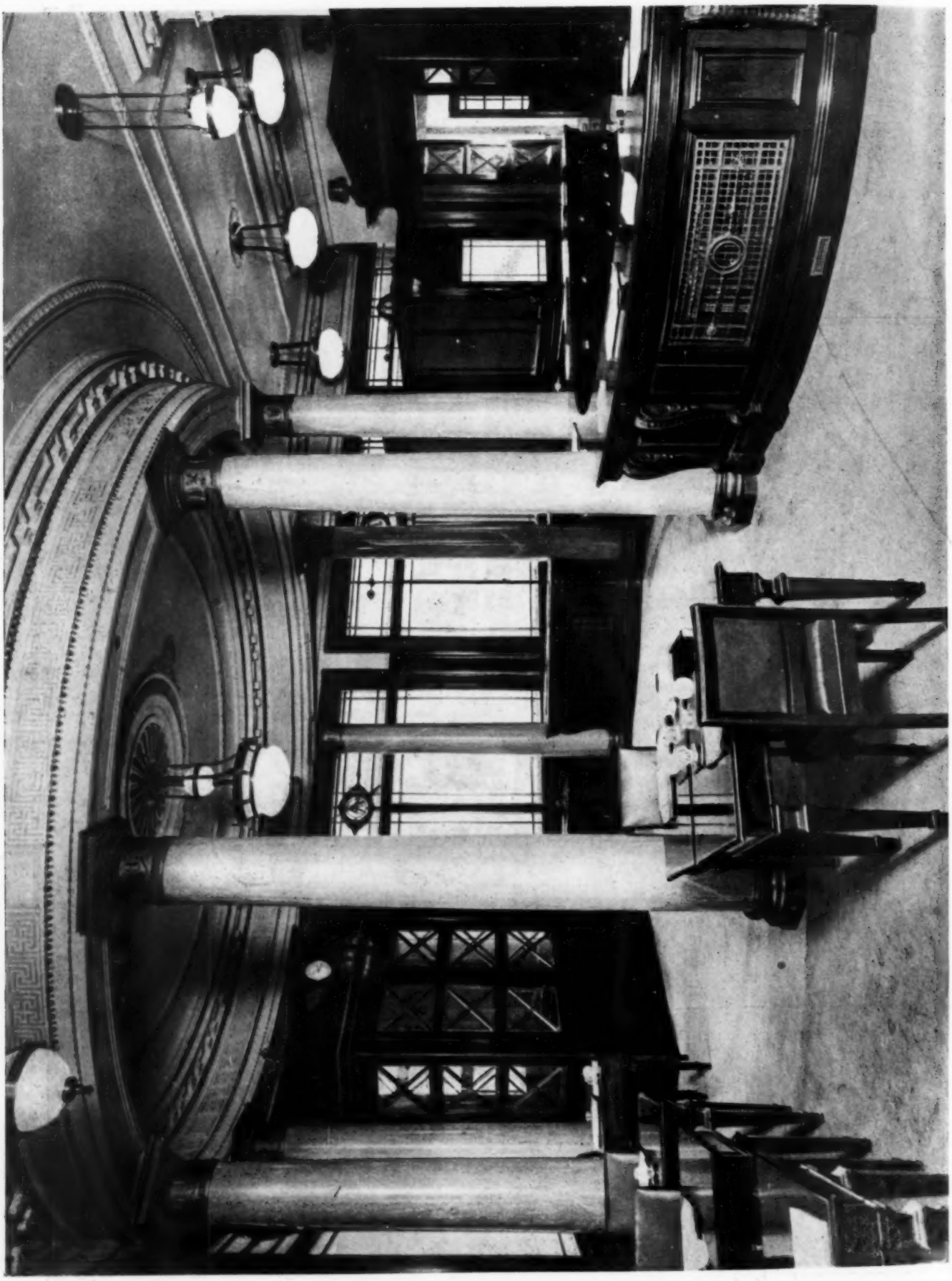
From the Exhibition of Dominion and Colonial Architecture at the R.I.B.A.

Chateau Frontenac, Quebec.

MESSRS. MAXWELL & PITTS, Architects.

New Premises of the Automobile Association, New Coventry-street, W.

MR. ANDREW MATHER, L.R.I.B.A., Architect.



New Premises of the Automobile Association, New Coventry-street, W.: The Vestibule.

New Premises of the Automobile Association, New Coventry-street, W. : The Vestibule.

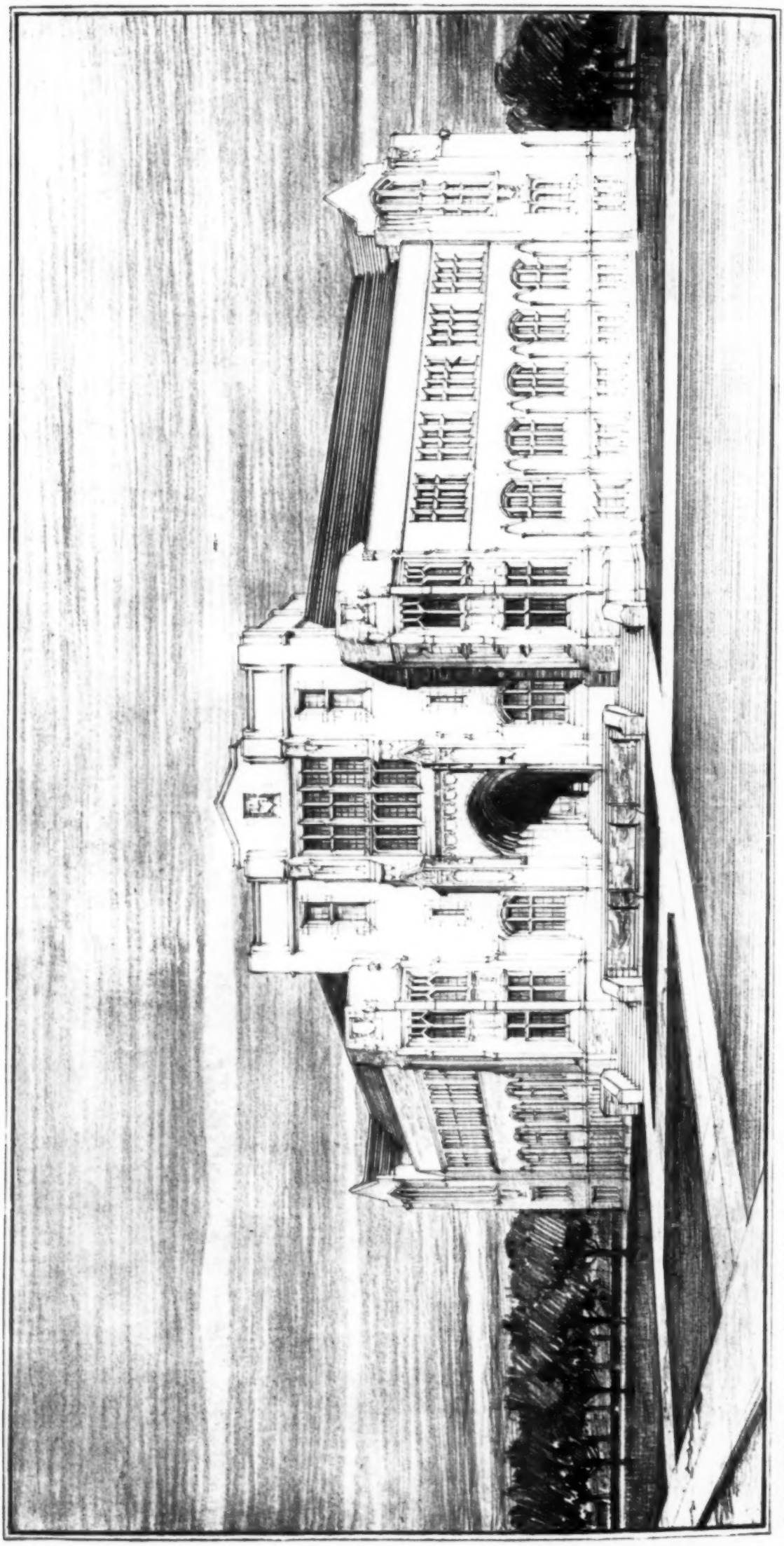
UNIV. OF MICH.

From the Exhibition of Dominion and Colonial Architecture at the R.I.B.A.

· THE · BANK · OF · NOVA · SCOTIA · BVILDING ·
· OTTAWA · ONTARIO ·
· JOHN · M · LYLE · A.R.C.A ARCHITECT ·

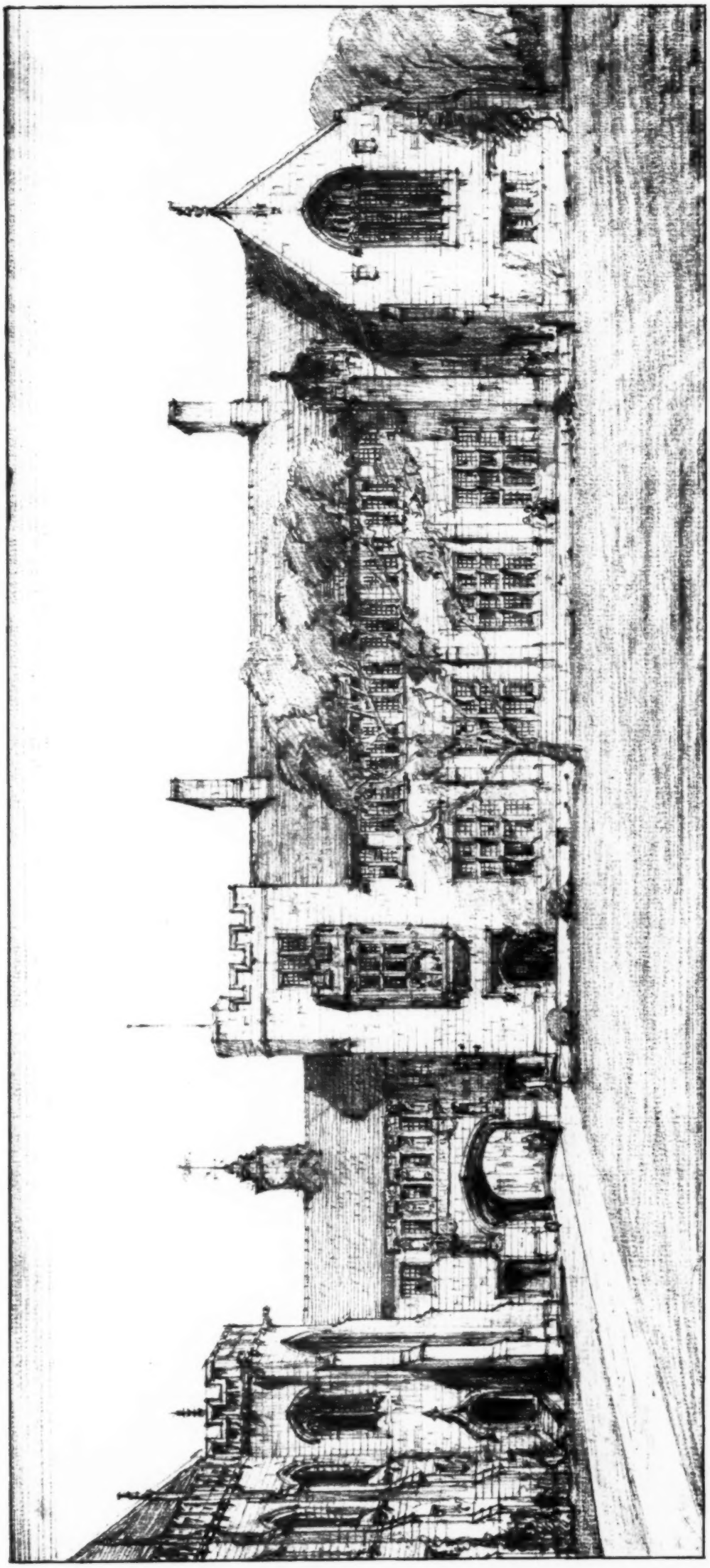
From the Exhibition of Dominion and Colonial Architecture at the R.I.B.A.

- SHOP BVILDING - FOR - THE - THORNTON - SMITH - COMPANY -
- TORONTO - ONTARIO -
- JOHN - M - LYLE - A.R.C.A. - ARCHITECT -



From the Exhibition of Dominion and Colonial Architecture at the R.I.B.A.

CHEMISTRY BUILDING, UNIVERSITY OF SASKATCHEWAN, SASKATOON, CANADA.
Mr. David R. Brown, Architect.

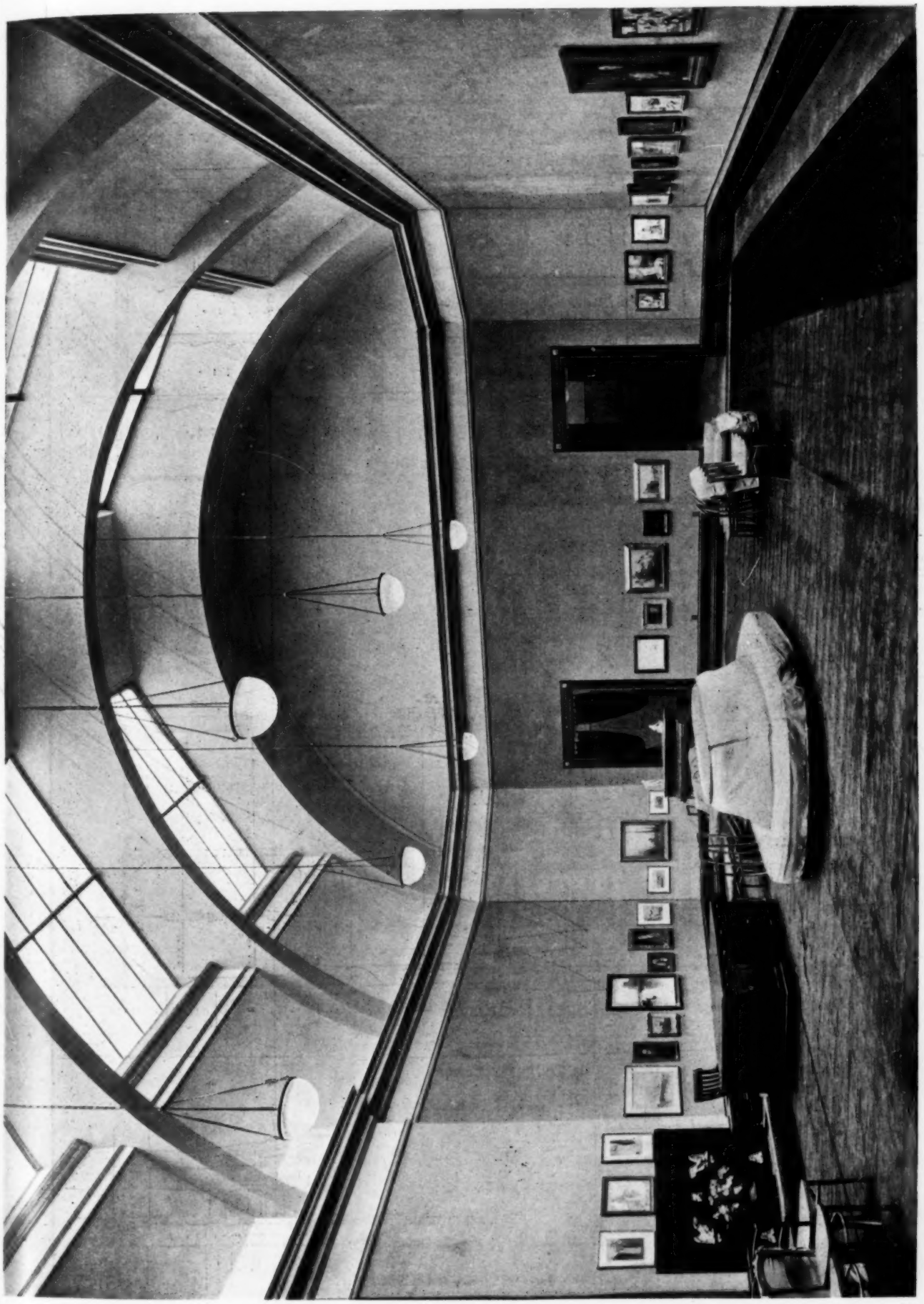


From the Exhibition of Dominion and Colonial Architecture at the R.I.B.A.

UNIVERSITY OF SYDNEY.

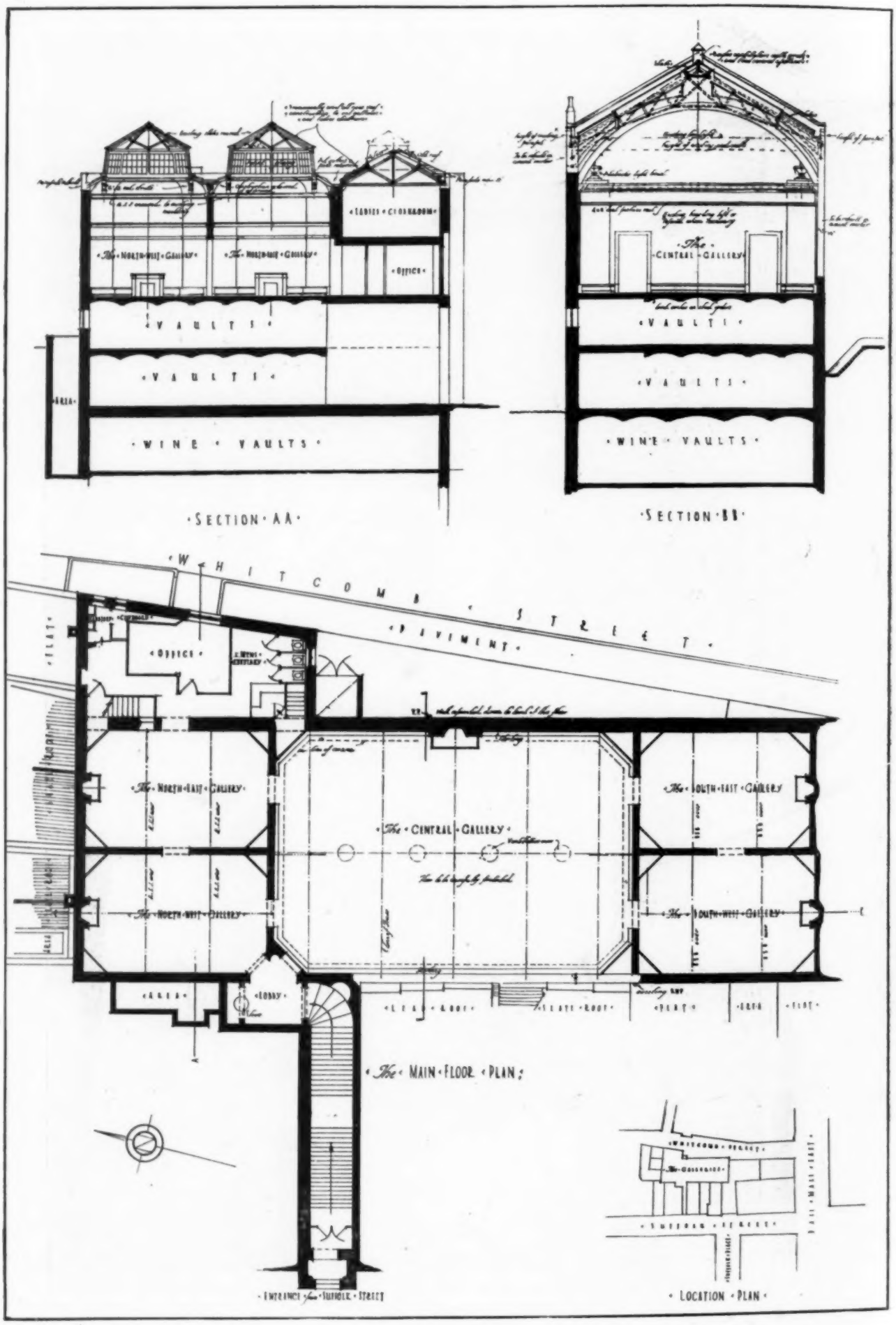
Professor Leslie Wilkinson, F.R.I.B.A., Architect.

UNIV. OF MICH.



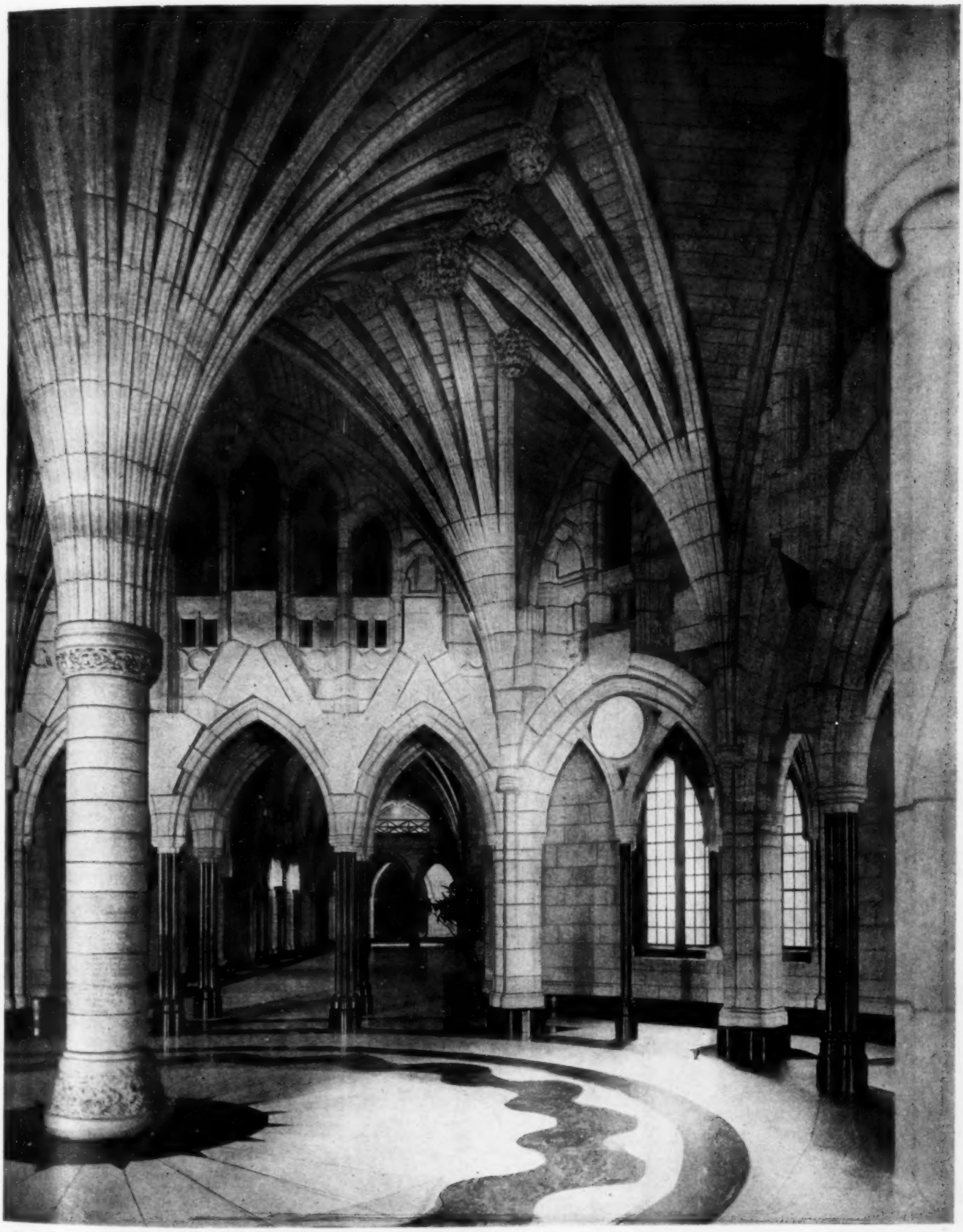
Remodelling of the Galleries of the Royal Society of British Artists, Suffolk-street, S.W.: Central Gallery.

Messrs. W. E. Riley, F.R.I.B.A., M.Inst.C.E., and Ernest B. Glanfield, F.R.I.B.A., Architects.



Remodelling of the Galleries of the Royal Society of British Artists, Suffolk-street, S.W.

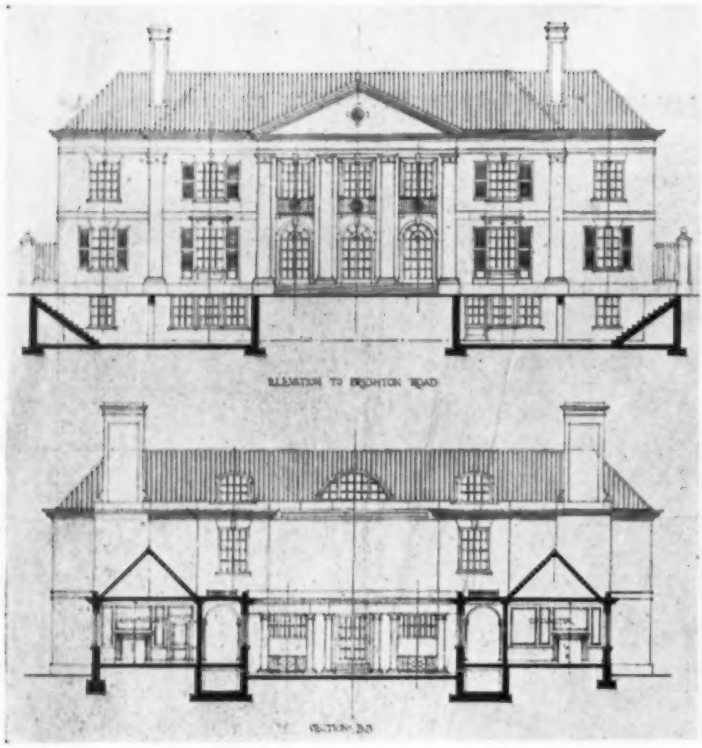
MESSRS. W. E. RILEY, F.R.I.B.A., M.Inst.C.E., and ERNEST B. GLANFIELD, F.R.I.B.A., Architects.

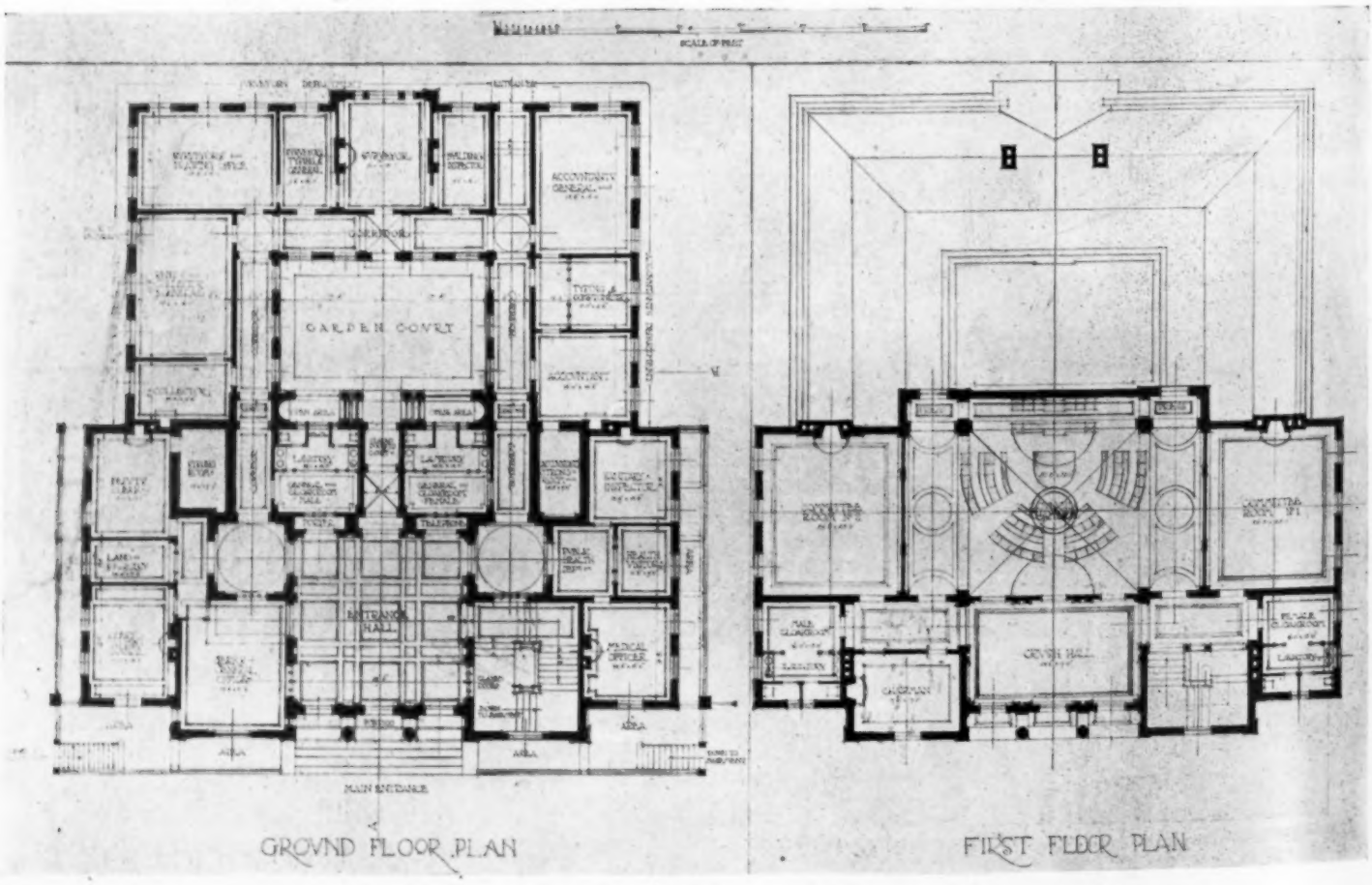


From the Exhibition of Dominion and Colonial Architecture at the R.I.B.A.

Parliament Buildings, Ottawa: Main Entrance Hall.

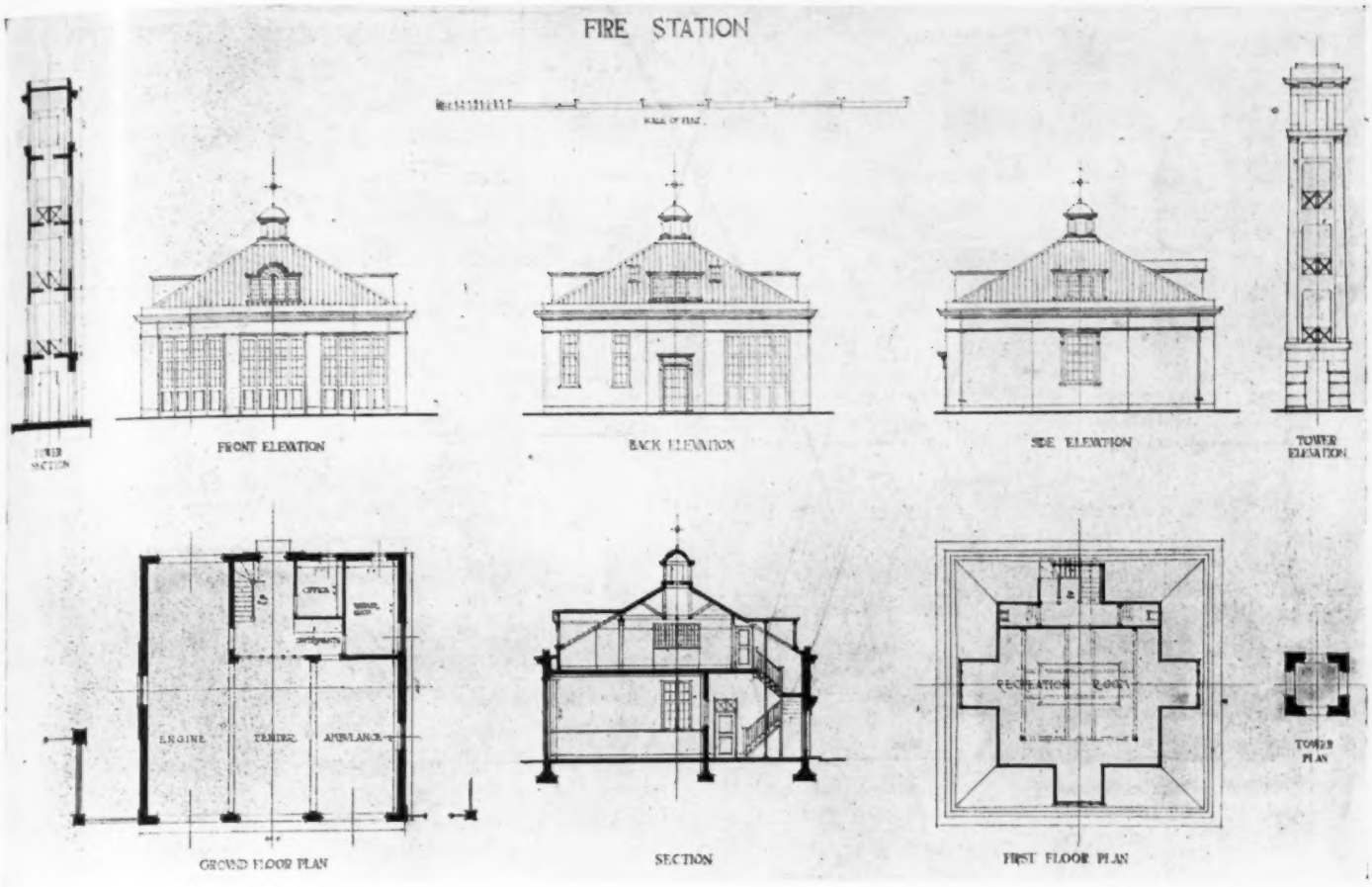
Mr. John A. Pearson, Architect.

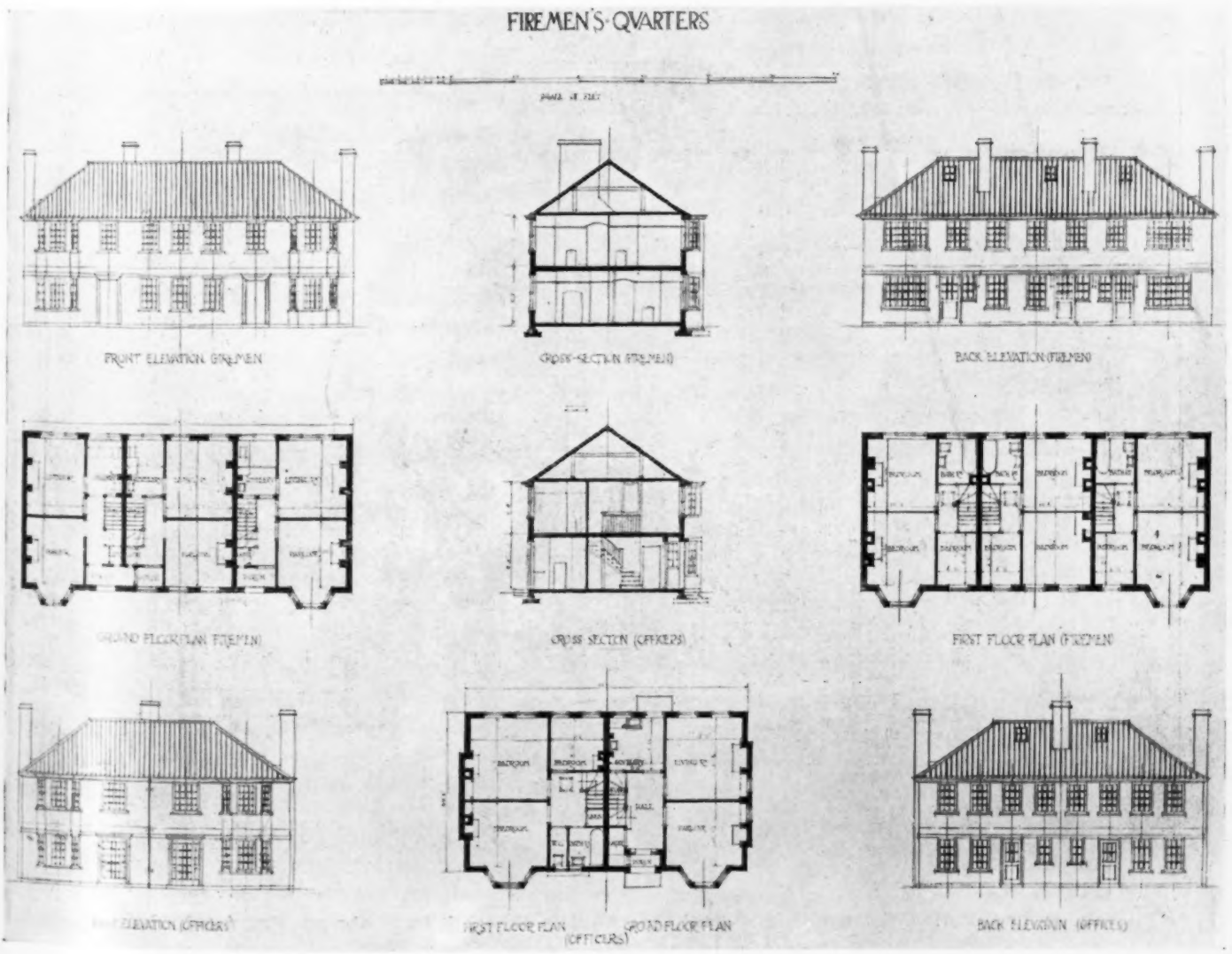




Coulsdon and Purley Council Offices and Fire Station Competition: First Premiated Design.

MESSRS. W. B. NICHOLLS & B. HUGHES, Architects.





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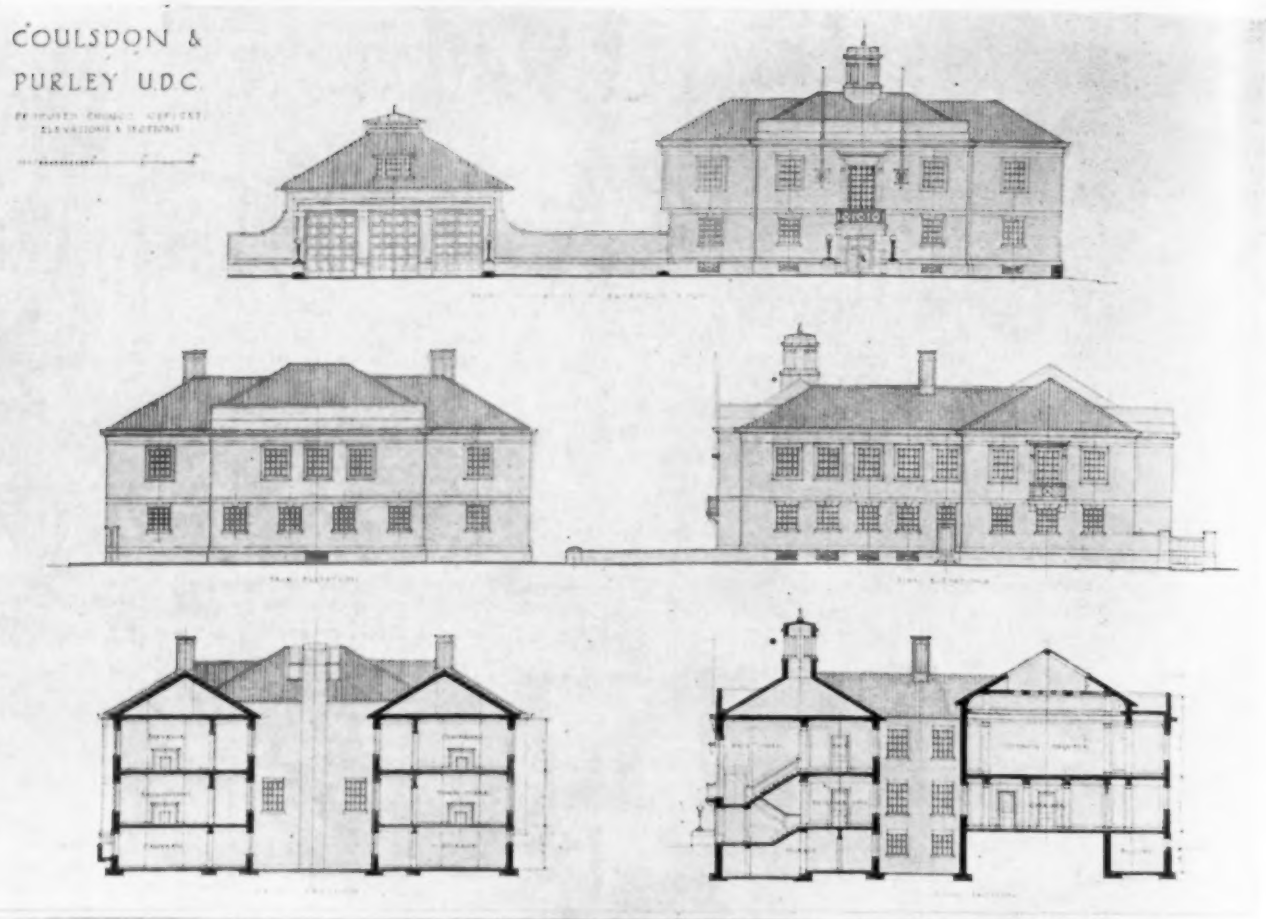
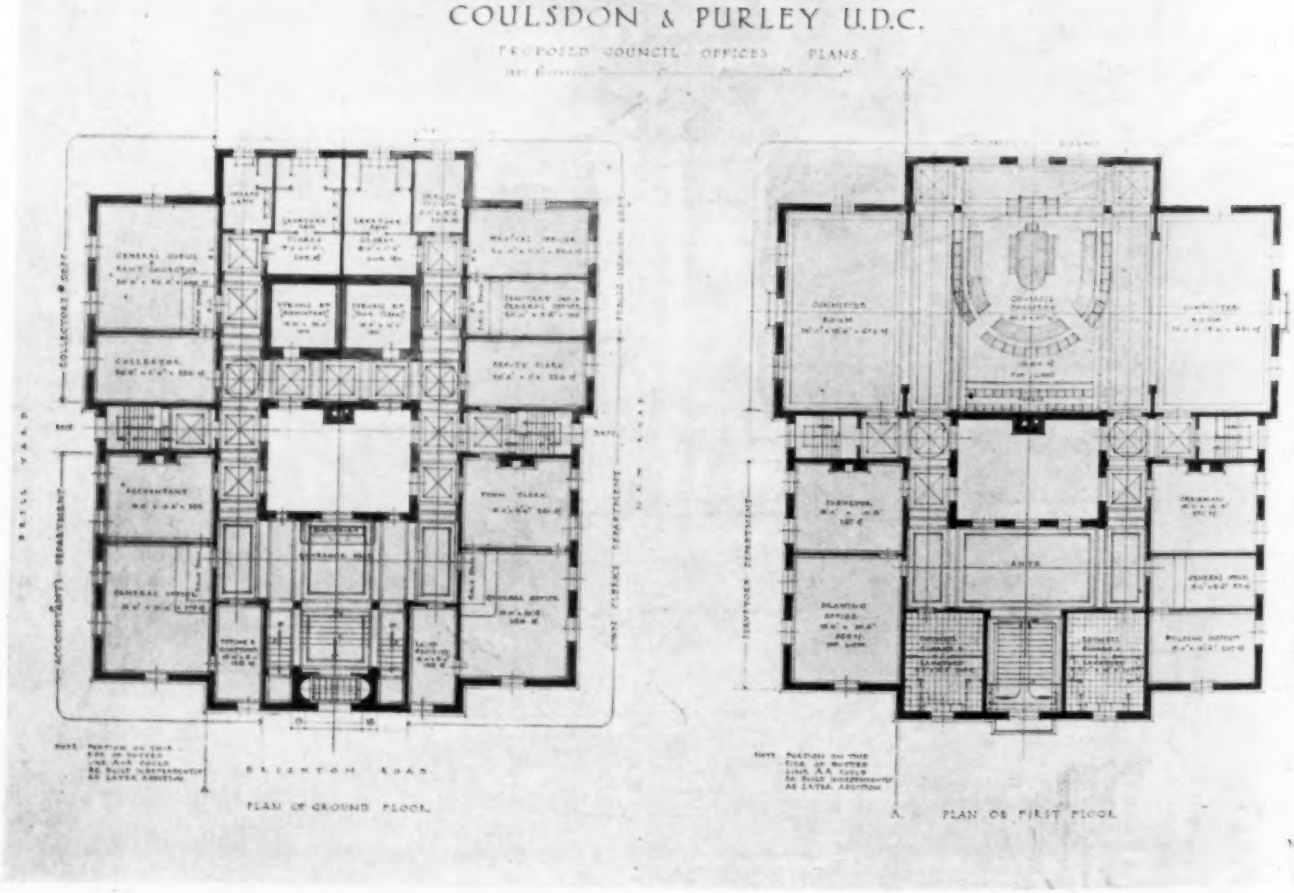
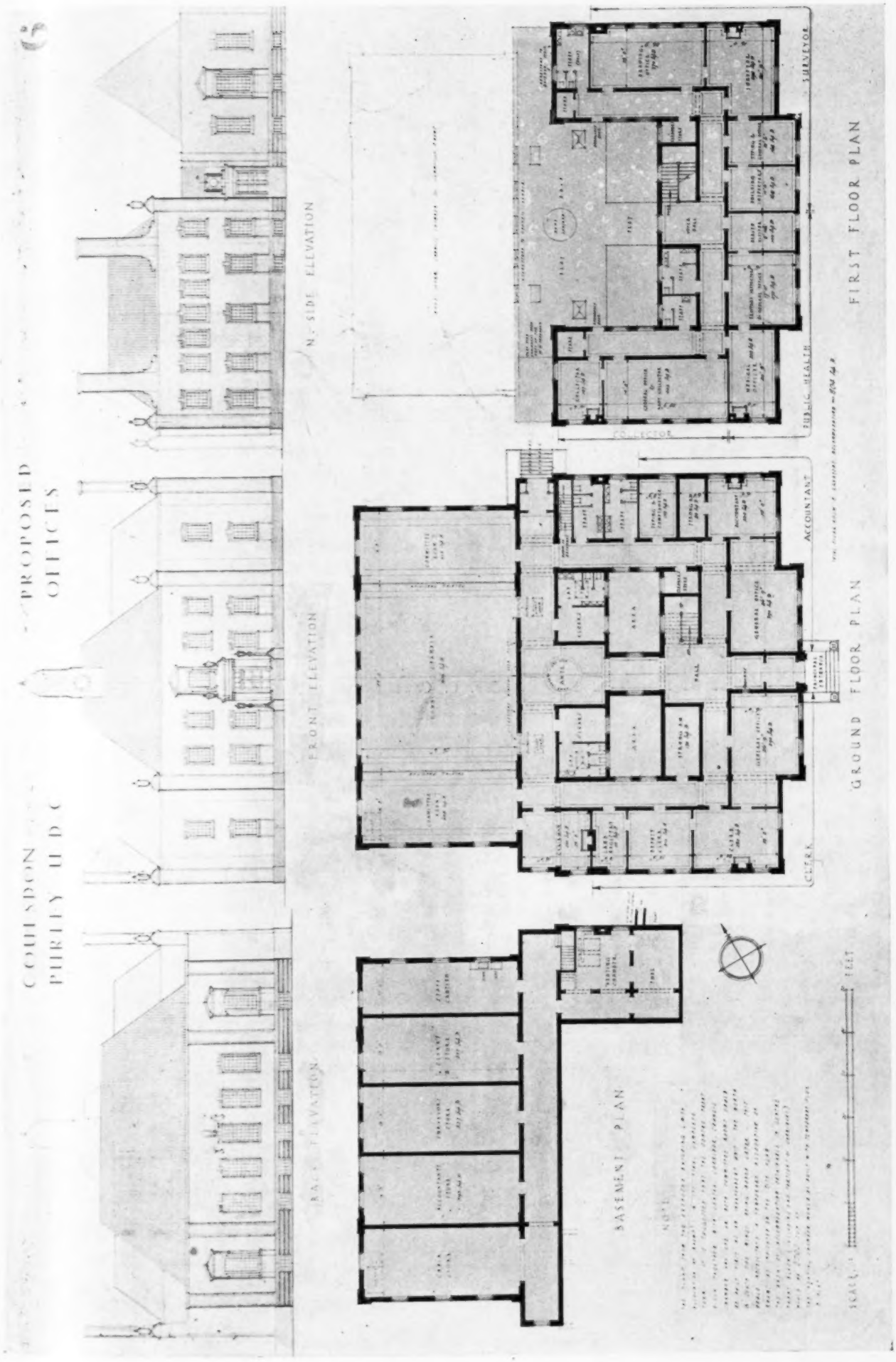


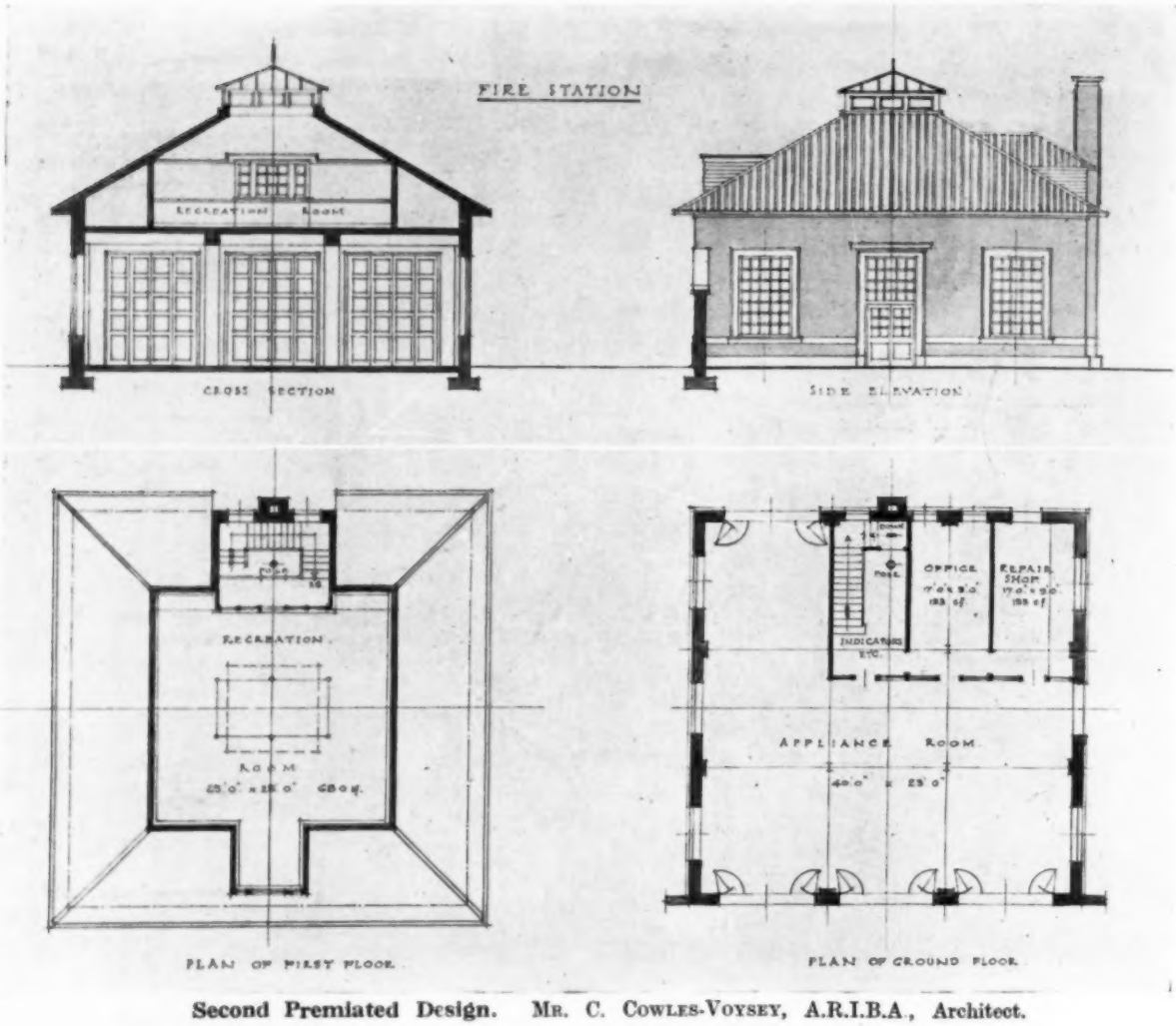


Coulsdon and Purley Council Offices and Fire Station Competition: Second Premiated Design.

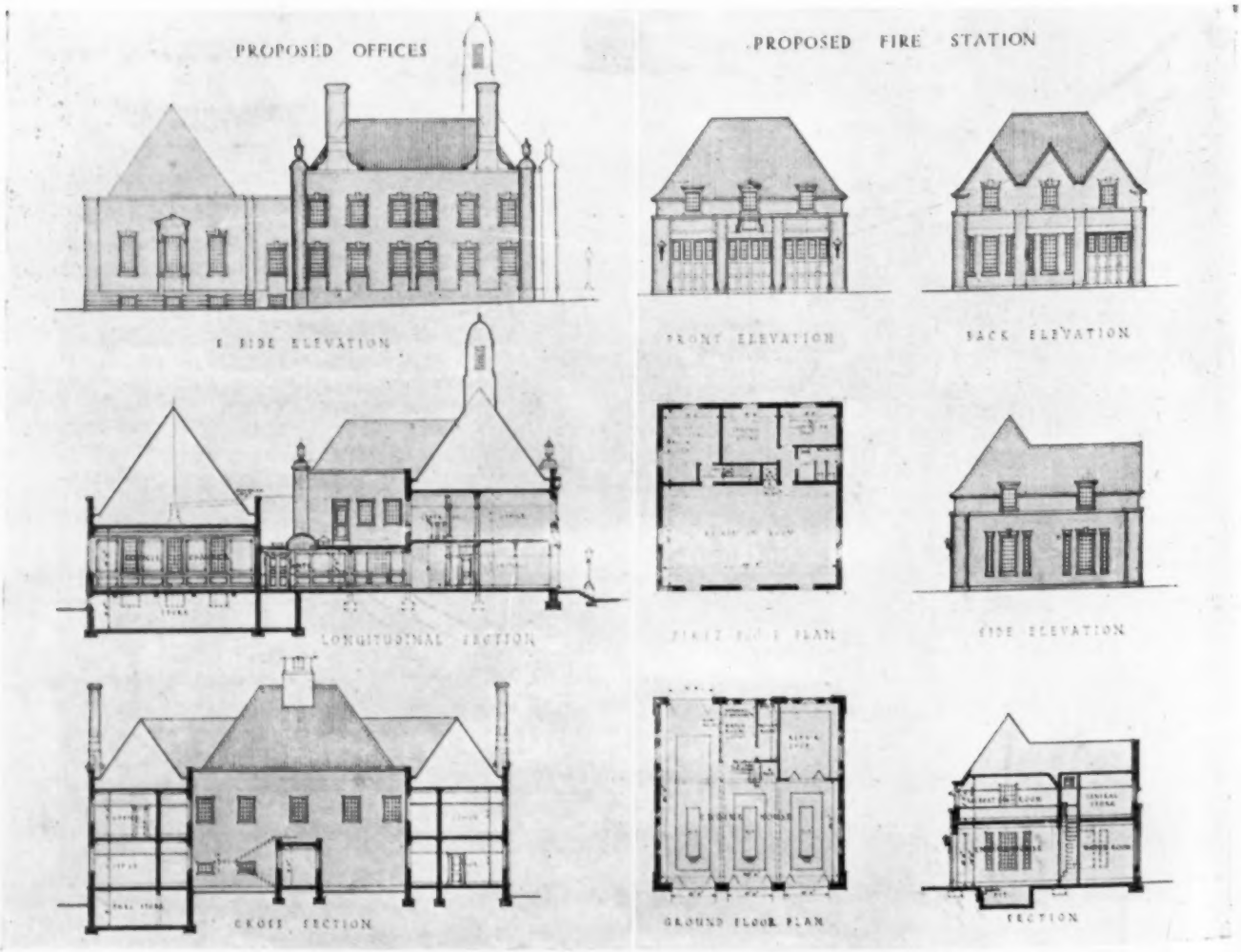
Mr. C. Cowles-Voysey, A.R.I.B.A., Architect.



Coulsdon and Purley Council Offices and Fire Station Competition: Third Premiated Design.
Mr. C. E. Hanscomb, F.R.I.B.A., Architect.

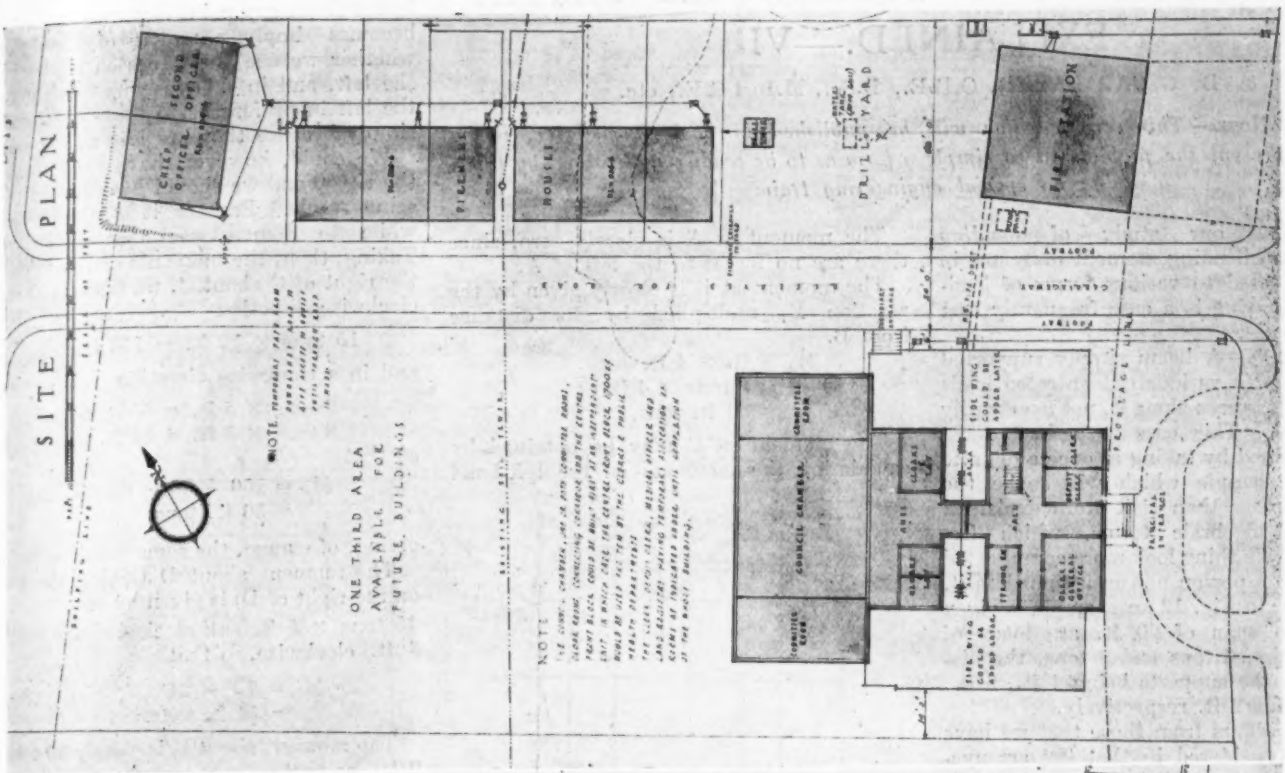


Second Premiated Design. MR. C. COWLES-VOYSEY, A.R.I.B.A., Architect.

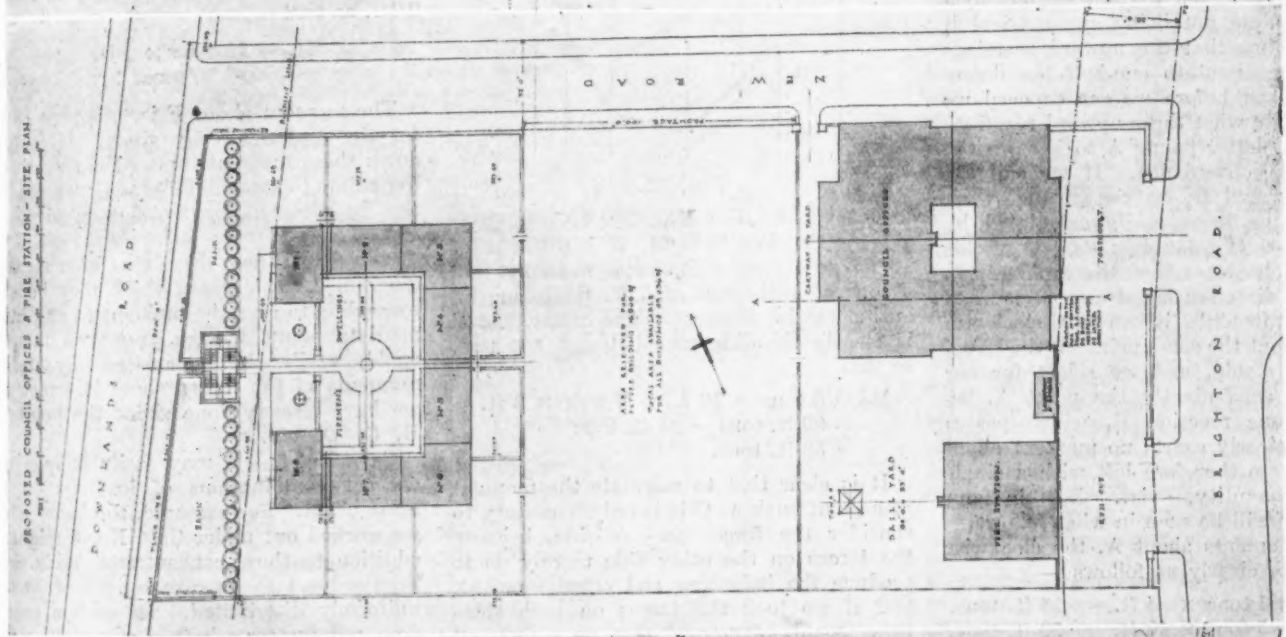


Third Premiated Design. MR. C. E. HANSCOMB, F.R.I.B.A., Architect.

Coulsdon and Purley Council Offices and Fire Station Competition.

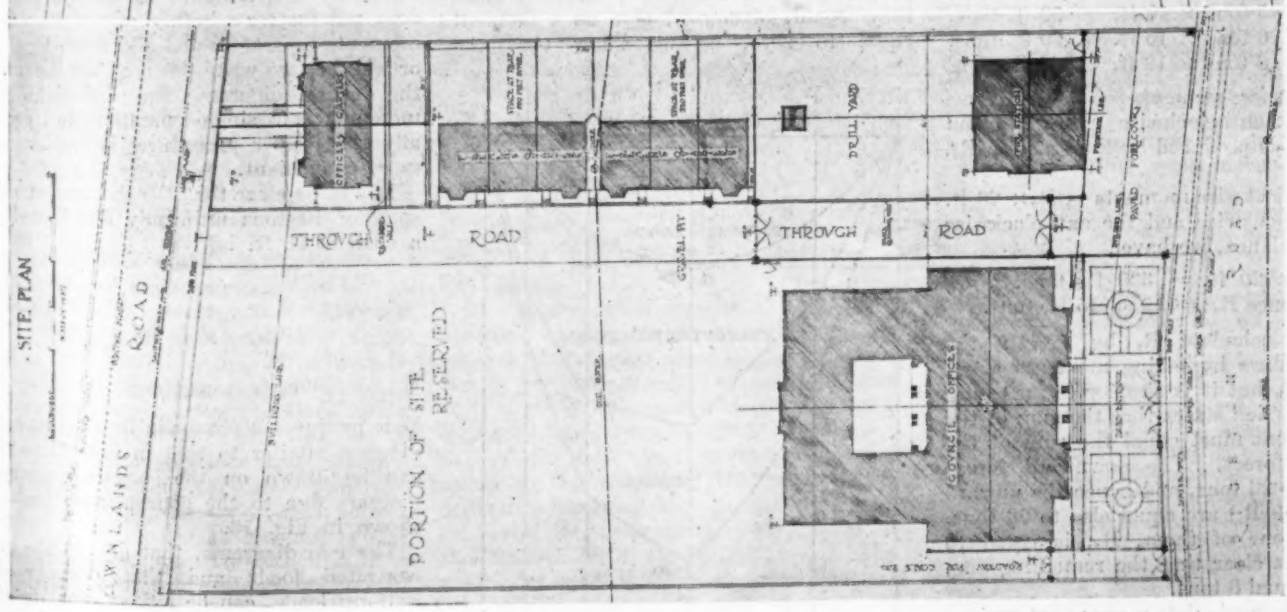


Third Premiated Design.
MR. C. E. HANSCOMB, F.R.I.B.A., Architect.



Second Premiated Design.
MR. C. COWLES-VOYSEY, A.R.I.B.A., Architect.

Coulsdon and Purley Council Offices and Fire Station Competition: Lay-out Plans.



First Premiated Design.
MESSRS. W. B. NICHOLLS & B. HUGHES, Architects.

CONSTRUCTIONAL STEELWORK SIMPLY EXPLAINED.—VII

BY OSCAR FABER, O.B.E., D.Sc., M.Inst.C.E., etc.

[EDITORIAL NOTE.—*This series, which will be published in book form later, is intended to present the problem in so simple a form as to be readily understood by those having no special engineering training.*]

CONTINUING our study of *bending moments* and bending moment diagrams in beams subjected to various forms of loading, the following is a case frequently met with in practice.

CASE No. 5.—A beam simply supported at its ends with various concentrated loads at various distances along it, not necessarily symmetrical. This case is perhaps most easily explained by taking at once a definite numerical example which will make the principle clearer than if it were explained in general algebraic terms, which frequently make a thing look more complicated than it is to a person not accustomed to it. Accordingly, in Fig. 12 an example is given where on a span of 20 ft. are loads of 4 tons, 5 tons, 6 tons and 8 tons, the distances from the supports being 4 ft., 6 ft., 5 ft., 3 ft. and 2 ft. respectively.

This case differs from those that we have previously considered in that the arrangement of loading not being symmetrical it does not follow that the upward reactions will each be equal to one-half the downward load, and before we can proceed we must calculate what these upward reactions are. Let us letter points A to F as in the diagram for convenience. If we call the reactions R_1 and R_2 for convenience their values can be most easily calculated by applying Law II (stated in Part V of this series), which states that the moments in a clockwise direction about any point must equal the moments in an anti-clockwise direction about the same point for the structure to be stable, and we select for our point most conveniently the point A, because the one reaction R_1 which passes through A clearly exerts no moment about it, and we are therefore left with a single unknown quantity, viz., R_2, in our equation, as will be seen in what follows.

Taking moments about A, the clockwise moments are clearly as follows:—

4 tons × 4 ft. = 16 ft. tons.
5 tons × 10 ft. = 50 ft. tons.
6 tons × 15 ft. = 90 ft. tons.
8 tons × 18 ft. = 144 ft. tons.

Total clockwise moments = 300 *ft. tons.*

The only anti-clockwise moment about the point A is produced by the reaction R_2, so that

Total anti-clockwise moments = $R_2 \times 20$ ft.

Since the clockwise and the anti-clockwise moments balance, we have

$R_2 \times 20$ ft. = 300 ft. tons.

Whence $R_2 = \frac{300}{20} = 15$ ft. tons.

We can calculate R_1 by exactly the same procedure by taking moments about the point F, but it is simpler to make use of Law I, which states that the sum of the upward forces must equal the sum of the downward forces. The downward forces are equal to 23 tons, and hence the upward forces ($R_1 + R_2$) are equal also to 23 tons, and since one of them, R_2, is equal to 15 tons it is clear that the remaining one, R_1, must equal 8 tons.

We can now calculate moments at various distances along the beam quite simply.

The moment at A is clearly zero, since there are no forces to the left of A.

The moment at B is clearly given by the reaction R_1 multiplied by its distance from B.

$M_B = R_1 \times 4$ ft.
$= 8$ tons $\times 4$ ft.
$= 32$ ft. tons.

The moment at C may be obtained by calculating the moments on the left-hand

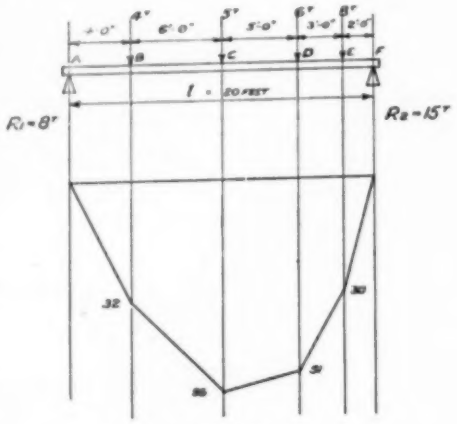


FIG. 12.

side of C. We have R_1 at a distance of 10 ft. producing a clockwise moment, and 4 tons at a distance of 6 ft. producing an anti-clockwise moment. The moment at C is clearly the difference between the two, so that

$M_C = 8$ tons $\times 10$ ft. $- 4$ tons $\times 6$ ft.
$= 80$ ft. tons $- 24$ ft. tons
$= 56$ ft. tons.

It is clear that to calculate the moment at a point such as C it is only necessary to consider the forces on one side, because the forces on the other side merely go to produce the balancing and equal moment, and if we took the forces on both sides they would, of course, give us a moment equal to zero, as we know that the

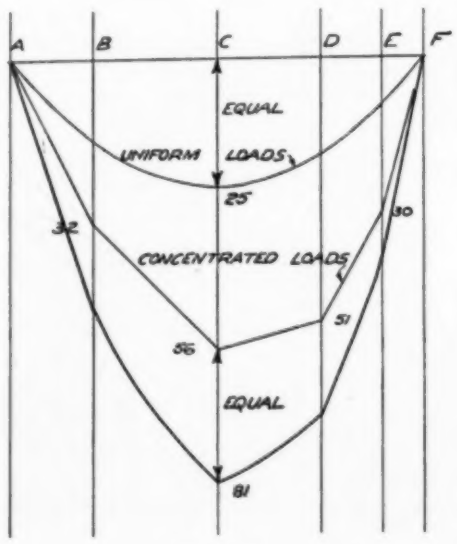


FIG. 13.

algebraic sum of the moment of all the forces about any point is zero. It therefore becomes simply a matter of convenience whether we use the forces on the right or the left, and in this case we use those on the left in preference to those on the right simply because they are less numerous.

We could, however, have used those on the right, and we should have obtained the same result. Perhaps it would be worth while to demonstrate that this is so. Taking, then, the moments of the forces on the right of C about C, we have in an anti-clockwise direction

15 tons × 10 ft. = 150 ft. tons,

and in a clockwise direction

6 tons × 5 ft. = 30 ft. tons,
8 tons × 8 ft. = 64 ft. tons,

so that

$M_C = 150 - 30 - 64$
$= 56$ ft. tons,

giving, of course, the same result as before.

The moment about D (taking the forces on the right of D) is given by

15 tons × 5 ft. anti-clockwise − 8 tons × 3 ft. clockwise, so that

$M_D = 75 - 24$
$= 51$ ft. tons.

The moment about E is clearly 15 tons × 2 ft., so that

$M_E = 15$ tons $\times 2$ ft.
$= 30$ ft. tons.

The moment about F is, of course, zero, for the reason already given. By setting down these moments under the corresponding points to some definite scale we produce the bending moment diagram given on Fig. 12. If these points are joined up by straight lines they give the moment diagram for this case, which may be used by scaling to give the moment at any intermediate point, though any such moment could easily be calculated by taking moments of the forces about it, exactly as we have already done about the points A, B, C, D, etc.

CASE No. 6.—It may easily happen that we get combinations of loadings on the same beam. For example, the beam which we worked out under Case No. 5 might, in addition to these concentrated loads, have been subject to its own weight of 10 tons uniformly distributed. In such a case it does not matter whether we calculate the moments separately and add them together or whether we write down all the forces on the same diagram and calculate the moments in a single operation, but generally the former procedure is easier and more convenient.

It will be clear that the moment at mid-span of 10 tons uniformly distributed on a span of 20 ft. is

$$M = \frac{Wl}{8} \quad \text{(see Case No. 4)}$$
$$= \frac{10 \text{ tons} \times 20 \text{ ft.}}{8}$$
$$= 25 \text{ ft. tons.}$$

This produces a parabolic bending moment diagram similar to that in Fig. 11, which can be drawn on the bending moment diagram due to the concentrated loads as shown in Fig. 13.

The two diagrams, that due to the concentrated loads and that due to the uniform loads, can be left as separate diagrams, in which case if it is required to ascertain the moment at any particular

point along the beam, the moment due to each can be separately scaled and added together. It is generally more convenient to construct a diagram to which this addition has already been done, so that only a single scaling is necessary. This is done in the lower diagram on Fig. 13, which is prepared by setting down below diagram for concentrated loads a length equal to the ordinate obtained from the diagram of uniform loads. The resultant diagram will be a figure with kinks at the points B, C, D, E, where the concentrated loads occur, and will not be quite straight between these points, as clearly a slight curvature is induced by the curved diagram for uniform loads which has been superimposed on the straight diagram.

There is an interesting simile between bending moment diagrams and the shape taken up by a piece of string when its ends are secured and loads are suspended from it in places corresponding to those on a beam whose bending moment diagram is to be studied, which when once grasped makes it much easier to realise what the form of a bending moment diagram should be in any given case, and which should therefore commend itself to students. For example, it was already shown in Fig. 10 that the moment diagram of a beam carrying a single concentrated load at midspan was a triangle, and it is clear that a load suspended at midspan from a string tied at the two ends would take up exactly that shape (see Fig. 14A).

Similarly a beam subject to uniform loading was shown in Fig. 11 to produce a parabolic bending moment diagram, and it is of course clear that a cable fixed at its two ends and uniformly loaded would take up this shape (see Fig. 14B). Similarly, a moment diagram produced by various concentrated loads is a series of straight lines, and an experiment shows that a string loaded with weights proportional to these loads with its ends secured will take up a shape exactly the same as that of the moment diagram when the weight of the string is negligible (see Fig. 14C).

If, however, the weight of the string becomes comparable to the concentrated weights, the moment diagram, as explained above, becomes a series of curves kinked at the points of application of the loads, corresponding exactly to the deflection that would take place in a loaded cable owing to the weight of the cable, which deflection becomes less as the weight of the cable becomes small proportional to the tension in it (see Fig. 14D). This simile between the loaded cable and the moment diagram on a stiff structure is often very helpful in enabling the problems to be more easily visualised.

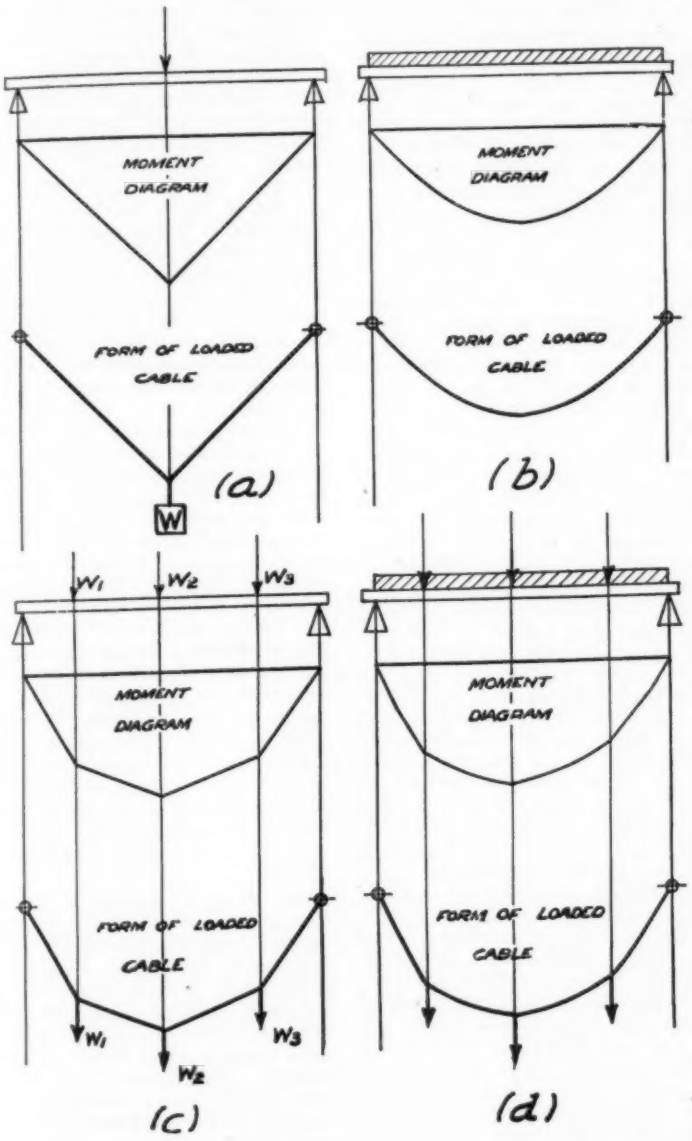


Fig. 14

SOCIETIES AND INSTITUTIONS

LIVERPOOL ARCHITECTURAL SOCIETY.

Sir Edwin Lutyens, R.A., went to Liverpool on Wednesday of last week to lecture to the Architectural Society on "Gas." According to the *Liverpool Post and Mercury*, Sir Edwin expounded his views on "matters relating to architects and their work," but not quite in the way anticipated. He seemed disposed to content himself by reading two letters which he had addressed to somebody who had put a certain question to him.

In the second letter Sir Edwin set out to show how if he "were King of France or rather Pope of Rome" he would establish a School of Patronage and grant privilege to those that took honours. "As King, I should," he said, "leave all art schools free as private institutions to which my Government would make us financial allocation. These available funds I should vest in patrons to promote the arts through their individual selection. At present 'art' schools (I do not include Liverpool in this) produce men who, failing in the world's arena, return to the schools as masters to earn a modest wage under Government auspices and attempt to teach what they themselves have been unable to acquire—creating thereby an inept and vicious circle with a following wind of vague, untutored preference.

"My school would teach the laws and sanity of beauty—holding that beauty is not a question of taste, but of ascertainable fact. I should set the best brains to discover and investigate these laws—and by their patronage the patrons would call artists into being—attracting men as efficient as are our merchants, ironmasters and bankers, and those of other occupations where the emoluments attract and excite the best intellects. For, generally speaking, it is the benefit to the stomach that accelerates the energy of the brain. Exceptions, of course, prove my rule. I am convinced that the country is full of dormant genius only needing a patron to awaken it. I believe further—I say it to cheer you—that the future holds in store for us a period of art greater than the world has yet seen—alas! not in our generation, though personally I ought to be grateful in that the latent talent, if brought out, would swamp all who are now practising the arts; so low have our standards fallen—standards that float on fancy without stability of fact."

Sir Edwin went on to say that he would like to see the curves of tree stems—say, beeches—of varying girth analysed, where they left the ground, on varying gradients and to varying aspects. They all obeyed the law and every separate cause brought its infallible effect. This sounded elementary, but it opened the door to everything, from the reasoned growth-forms of grasses to the planets; winds and their courses and to the sun—the author of all vision. He would like also attention given to the question of crystals—how and by what geometric and resultant forces they were impelled, the eye—the critic of all visual beauty—must be developed, the genial sphere—curves simple and in three dimensions—must be explored, and he should endeavour to convert the R.I.B.A. into a scientific body rather than a trade union, and keep it in close touch with an academy of music.

In the rôle of Pope, added Sir Edwin, his cardinals should lay down formulæ of beauty as sincerely as were those laid down for strains and stresses by engineers. Classic architects had approached a solution of their problems, but had failed to give reasons for their conclusions. The Greeks possessed knowledge beyond our present comprehension, and the amount of labour in their endeavours was prodigious. "The only solution I see is that some School or Chair should be founded to search and inquire into the laws of nature's beauty as they affect the eye," said Sir Edwin in conclusion.

Replying to the question "How should architects meet the modern problem of clothing ferro-concrete?" Sir Edwin said: "I can handle brick or stone or a bit of wood, but you cannot handle ferro-concrete without getting into an awful mess," adding that he did not like cement structures that chipped and developed skin disease, which produced pebbles. "No doubt," he said, "somebody will find a solution, but I don't know enough about strains myself to deal with ferro-concrete. I should have to go to an engineer for advice." All architects, he said, should be trained as engineers, and all engineers should be trained as architects.

SOUTH WALES INSTITUTE OF ARCHITECTS AND INSTITUTE OF BUILDERS.

Under the auspices of the South Wales Institute of Architects (Central Branch) and the Institute of Builders (South Wales Branch) Mr. William Haywood, F.R.I.B.A. (hon. secretary of Birmingham Civic Society), on Thursday, October 21, gave a lecture on "Advisory Art Committees," at the Engineers' Institute, Cardiff. Mr. Harry Teather, F.R.I.B.A., occupied the chair.

The lecturer confessed that Cathays Park, with its civic buildings, was the envy of many towns in England. Even his own city of Birmingham had lately sent a deputation to Cardiff to study this civic centre as a model for their own. It was a magnificent start, he said, and with that behind it Cardiff should go far. The speaker went on to illustrate by means of lantern slides what civic pride could do and ought to do for a city or town. A picture of Hull showed the incongruous conjunction of a statue, public lavatories, a fire-alarm box, and other accessories in a public square—and the audience was reminded of a similar unsightly conglomeration in The Hayes, at Cardiff. It was monstrous, said the speaker, that the centre of a city should be thus used as a corporation backyard.

Explaining how electric illumination could be used to make or mar a city's charm, the lecturer displayed a picture of the artistic light effects in Broadway, New York, which fully justified his assertion that illumination properly used could bring colour and romance into life, and add vivacity to the streets. The speaker also told of the success achieved by the Birmingham Civic Society in preserving the ancient beauty spots and in improving the amenities of that city. It is believed that a similar organisation will probably be formed in Cardiff.

SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS

This Society has issued its 38th annual report for the year ended April, 1926. The Society, which suffered loss through the death last March of the then President, Mr. H. L. Paterson, F.R.I.B.A., has over seventy members and a very full and interesting session was spent. Lectures given included one on "Disputable Building Contracts," from Mr. W. T. Creswell, L.R.I.B.A., in which he made it clear that while the preparation of plans and specifications merely constituted the architect a draughtsman, the authority to obtain tenders constituted him an agent with all its attendant liabilities. Professor Lionel B. Budden, A.R.I.B.A., at a subsequent date delivered an interesting address on "The Future of Architectural Education." The lecturer, speaking with reference to the International Congress on Architectural Education, held in 1924, under the auspices of the R.I.B.A., declared that scholastic education in architecture had superseded the pupilage or apprenticeship system in the greater part of Europe and America. He was in favour of the former system, because the five years' course had the effect of weeding out all but those who believed architecture to be their true vocation. The danger lay in the fact that the schools for the most part were under the sole direction of a single professor, and he advocated the development of academic schools into faculties of architecture with a professorial staff.

SCULPTURE AT THE ROYAL GLASGOW INSTITUTE

By BENVENUTO BRUNELLESCHI.

"Fancy wedded to reason is the mother of the Arts and the origin of their marvels."—Goya.
"The arts of civilisation were never developed in water-tight compartments, as is shown by the uniformity of custom all over the modern world."—Lethaby.

The sculpture at the Royal Glasgow Institute occupies the upper entrance hall to the galleries. We understand it was arranged by Mr. Benno Schotz, who has carried out the placing and grouping with marked success. Although the show contains fewer pieces of outstanding merit than last year, there is much sound work. The merely clever modeller is less in evidence, and some of the best of our younger sculptors show a marked advance toward a mature and searching understanding of the true aims to be expressed in the use of the various mediums.

The place of honour is occupied by "The Vision," by Mr. Alfred Turner, a well-modelled nude of a youth with arms uplifted and a wrapt expression on his face. The tense attitude and general pose well express the emotions of an inward vision.

Rodin is represented by a statuette, "La Centauresse," in which the long-drawn-out body of the human part, though fine in rhythm, seems somewhat elongated to be altogether pleasant. The arrangement of the head, body and arms implies the inward struggle between the beast and the human soul, and suggests an agonising yearning. The whole is vigorously modelled in Rodin's best manner.

"The Kiss," by Mr. Alex. Carrick, is a charming little group of mother and child. It is finely posed, the mother standing with the child held up by the arms. In it we see how well this sculptor understands that solid sculpturesque treatment of enclosing planes which is so characteristic of the work of the great Renaissance men.

Mr. G. H. Paulin shows a composite portrait group of "Ian and Keith Fair." It is well modelled, but we doubt if such an arrangement could ever be wholly satisfactory. It is a difficult problem courageously tackled. "Lord Byron," a statuette, by Mr. Pittendrigh Macgillivray, is somewhat theatrically posed, and lacks the charm of his female portraits. "Thalia," a well carved white marble bust, by Mr. Newbury A. Trent, is of the semi-classical type. Mr. Macgillivray also shows a statuette of "Robert Burns," somewhat tragic in pose and expression and sketchy in treatment.

Mrs. Phœbe Stabler, in "Echo" (a lead statuette), shows a nude kneeling figure of a boy, somewhat lacking in structure and in richness of modelling. "The Potter," by Mr. Alex. Carrick, is another interesting little statuette. The potter, an old man in the nude, is seated and deeply engrossed in shaping a bowl. Mr. Carrick must find such statuettes a relief after his colossal War Memorial figure work.

Mr. Benno Schotz shows a great advance in his art. His modelling is surer and more searching. The somewhat sketchy treatment has given place to a real grip of the character of his subjects. In his presentation bust of J. B. Fergusson he attains a very high level as a delineator of character. In his "Boy Bather" we have a dainty little statuette full of simple action and thoroughly realised in expression and modelling. "Leda," by Mr. David A. Francis, shows the bust of this classical personage. The tragic expression is well caught, but we venture to think the type is rather too modern to illustrate this old Greek fable.

Mr. Alfred F. Hardman's "Italian Workman" is vigorous and full of character. Miss Anne Acheson's two lead garden figures, "The Imp" and "Mischief," are suitably treated for the material and have a distinctly elfish character. "The Mermaid," by Miss Elizabeth A. Clapp, expresses the subject in an imaginative and pleasing manner. "Atalanta," by Mr. Charles Pibworth, is a classically-treated statuette.

Miss Phyllis M. Bone shows several of he animal studies treated in her usual robust and sculpturesque manner, preserving that breadth of handling which makes her work so effective and harmonious when seen in an architectural setting. This is most notable in her garden sculpture group, "The Fox and the Toad," in lead.

"Ishmael," a large statue in oak, by Mr. Harold J. Youngman, fine in feeling and expression, is notable for its mediæval-like qualities and the handling of the material. "Beethoven," by Mr. Charles Pibworth, is somewhat of a caricature and theatrical in pose. Mr. W. Reid Dick's "Baby" is a subtly carved head of a child, of great charm, in white marble.

"Brig.-General J. W. Walker," by Benno Schotz, a little commonplace in pose and execution. "The Artist's Wife," by Mr. Charles Wheeler, is a languidly posed half-length, attractive in rendering. Mr. Percy Portsmouth, in his "Pater Patriæ," shows a strongly modelled male bust. There is a searching sureness in the touch and grip of the character and anatomical soundness in the handling which make it stand out as one of the best busts in the gallery.

A marble head of "Modern Girl," by Mr. William M'Millan, is delicately carved, with a pensive expression, but lacks the charm of his last year's exhibits in the same gallery. "Ehrna," a typical female bust, by Mr. Macgillivray, is well balanced and effectively handled. Mr. M'Millan also shows a "Group in Green Slate," which is rather archaic and primitive in its treatment. Its mixed technique of incised work and modelling is unhappy, and in mass it is lumpy and somewhat barbaric, being Czecho-Slovakian in type.

Mr. G. W. Salvesen, in his "Roundelay," shows a group (statuette) of two young nude girls, playful in idea and well balanced, but we venture to suggest that a young sculptor of his ability might be engaged on more serious work. Mr. Reid Dick, in his bust of Mr. T. S. Tait, the architect, shows great strength of handling, the face being full of vitality and delicate modelling.

Mr. Charles Wheeler, in his "Carved Tree Trunk," has given us a fine example of the wood carver's art. The group of mother and child is treated with great dignity and is solidly carried out with a charming beauty of the mediæval sort in the handling of the heads. A masterly use of the material is achieved, and such work is ideal for association with architecture. If sculptors would only rely more on the inward vision instead of the anatomical copying of the features of the model we might soon revive the glories of architectural sculpture. "Iris," a relief, by Mr. Richard Barbe, is subtly modelled and French Renaissance in feeling.

Mr. Gilbert Bayes shows a fret-work and carved painted-wood panel of "Oxen of Siena." To a large scale, as an over-door or over mantel, this might be very effective, but in this small scale it is rather suggestive of a nursery toy. It is well done, however, and possesses distinct mediæval qualities in its simple composition and harmonious colour.

Miss Mary Morton's marble group, "By the Lake of Galilee," is cleverly composed and well realised. Mr. Percy Portsmouth's portrait of Madame Leon Marais is another of his conscientious busts.

"Sir George Frampton," by Mr. Albert Toft, is an excellent portrait, strongly modelled but somewhat spoiled by the high glaze of the bronze finish, which gives a spotty effect of high lights. "The Storm," by Mrs. Edith M. Gabriel, is a

finely-modelled life-sized half-kneeling female figure, with left hand stiffly raised over head. It is dramatic in pose and soundly constructed, with all the charm we always find in this able artist's work. It suggests lightning, thunder and rain, if we take it to represent an upheaval of the elements, but the face shows no tinge of fear. If it represents an inward storm of passion the face is still too calm and, but for the half-open lips, scarcely shows the inward conflict. It is a finely-composed piece of rhythm and line and distinguished in execution. Sculpture like this is justified when isolated from architecture. There is real creative imagination in such handling of the human figure. (We saw this work at the Royal Academy, and it was illustrated in *The Builder* of May 28 last.)

"The Greek Captive, or The Jealousy and Revenge of Semiramis," by Mr. Frank Mowbray Taubman, is a well-conceived and carried-out bronze equestrian group, rather more Gothic in feeling than Greek. The horse is decoratively arranged, and the warrior clasps the nude fem le to his breast while his javelin has transfixed her through the torso. Speaking from a realistic point of view, one would like to know how this was done from the position of the two figures; but whether it is possible or not it is artistically justified by the success of the composition. This is really the only problem group in the exhibition. There is a fine swing about it and it is well placed for an all-round view.

In conclusion it must be said that the general level of the work in this section is good. Sculptors seem to be settling down and taking their work more seriously after the disturbing period of the war, but no great universal advance can be expected if mere technique and adroitness in handling are the end in view. In sculpture and painting the inward vision counts for even more than it does in architecture, and with a greater display of the working of fancy and imagination, wedded to such excellent craftsmanship as is here shown, a great forward movement might be expected. Sculpture is too much divorced from architecture to-day, and it would be to the advantage of the nation if some real step could be taken to lead to a greater collaboration. The nation that does not encourage and reward its artists is on the decline, and although any form of subsidy would be a mistake there are many promising sculptors who should receive some definite encouragement.

Let us not forget, however, the warning of Leonardo da Vinci: "*Miserable men, how often do you enslave yourselves to gain money.*"

UNIVERSITY COLLEGE CENTENARY

We have received a copy of the Calendar of University College for the session 1926–27, the centenary year of the founding of the College. The importance of a great university in London would seem to have become widely recognised among educational reformers about 1820, and public attention to the undertaking seems to have been due to a letter to Henry Brougham, at that time Rector of the University of Glasgow, from Thomas Campbell, the poet, the letter being published in the *Times* for February 9, 1825. From this point matters went on apace, and on February 11, 1826, a deed of settlement was drawn up by which it was agreed, among other things, that the parties thereto were "to raise a capital not greater than three hundred thousand pounds and not less than one hundred and fifty thousand pounds, sterling . . . for the purposes expressed . . . with the object of the advancement of Literature and Science by affording to young men residing in or resorting to the Cities of London and Westminster . . . adequate opportunities for acquiring Literary and Scientific Education at a moderate expense." That was the origin of University College or the University of London as it then was called. Later, in 1836, it was incorporated as University College, London, by a Royal Charter, which was annulled in 1869, and finally in 1907 it was incorporated in the University of London.

LEGAL SECTION

NOTES ON CURRENT CASES

Landlord and Tenant.

The case of Field *v.* Curnick and Others, recently reported (1926, 2 K.B. 374), though decided on May 11, raises a point of interest to those who enter into building leases. The plaintiffs were the successors in title of certain lessors who in 1837 had demised to one Henman a piece of land in Devonshire-street, Mile End, "together with the messuages or tenements and all other erections and buildings which at any time hereafter during the said term shall be built on the piece of ground or any part thereof" for a term of 99 years at a ground rent of £13, and the said Henman had covenanted within three years to build and completely finish two houses, and he had also covenanted that during the said term he would well and sufficiently repair, maintain, paint and keep the "said premises respectively with the appurtenances in such good and substantial repair as is necessary for occupation at a rack rent." The covenants included his executors, administrators and assigns. The lessee, instead of building two houses, had built six houses, and the Court found that although it was quite impossible at this distance of time to say which two houses were the first completed, yet, from the evidence, they appeared to have all been built at the same time, as they were houses in a row built of the same material and to the same design and were in agreement one with another and of uniform height and elevation.

There had been numerous assignments or subleases, and in this action the plaintiffs were seeking to recover possession of the land, together with the six houses, for breach of the covenant to repair. In one case judgment had gone by default and in three others relief from forfeiture had been obtained, so only two houses remained to be affected by the judgment in this case. The question raised in the case was whether the covenant to repair applied; the defendants contending that its effect was exhausted as it only extended to two houses and it was now admitted that three had been repaired.

The Court laid down the law as follows:—"If a lessor demises a house and there is an express covenant to repair, the lessee is, of course, bound by it; if, on the other hand, the lessor demises a piece of land and there is an express covenant by the lessees to repair any house subsequently erected thereon, equally the lessee is bound by it; further, a general covenant to repair includes not only the buildings existing when the demise is made, but all those which may be erected during the term; if, however, the covenant to repair is only one to keep in repair the demised premises, it applies only to those buildings existing at the date of the lease, unless the new buildings are made part of the old ones." This being the law, to some extent based on the opinions delivered in an old case—Cornish *v.* Cleife (3 H. and C. 234), although in that case there was a particular covenant to repair "the buildings demised," and it was held not to extend to houses subsequently erected—it remains to be stated how it was applied in the present case. The Court held that, having regard to the parcels in the demise, "together with the messuages or tenements and all other erections and buildings which at any time hereafter during the said term shall be built on the same piece of ground or any part thereof," and having regard to the fact that all the houses were built simultaneously in a row, the covenant extended to all the houses."

It is a little difficult to see how this second fact was material, for it would appear that the covenant was a general covenant to repair, and if so it would, as stated above, cover all houses erected during the term, but the lease is not set out verbatim and it is possible that in the actual wording the words "the said premises" in the covenant may have appeared limited to the two houses; on the other hand, the express covenant to build two houses within three years may have merely been inserted to secure the payment of the ground rent—a course very commonly adopted.

In the result, possession was granted of one of the two houses left subject to the decision, as in the case of the second the defendants were claiming relief under section 14 of the Conveyancing Act, 1881, and the Court intimated it was a case where relief should be granted.

Compulsory Acquisition of Land, Housing Act.

We may very briefly note a decision recently given under section 46, subsection (1) of the Housing Act, 1925, in the case, Northwood *v.* London County Council (2 K.B. 411). The Council were carrying out an order of the Ministry of Health sanctioning an improvement scheme made under Part II of the Housing of the Working Classes Act, 1890, and had served notices to treat for the compulsory acquisition of a licensed public house. The land to be acquired was not included merely for making the scheme efficient.

Section 46, subsection (1) of the Housing Act, 1925, which has taken the place of section 9, subsection (1) of the Housing Town Planning Act, 1919, now repealed, provides, "Where land included in any improvement or reconstruction scheme made under this Part of this Act, or the corresponding provision of any Act repealed by this Act (other than land included in such a scheme only for the purpose of making the scheme efficient and not on account of the sanitary condition of the premises thereon, or of those premises being dangerous or prejudicial to health), is acquired compulsorily, the compensation to be paid for the land, including any buildings thereon, shall be the value at the time the valuation is made of the land as a site cleared of buildings and available for development in accordance with the requirements of the building by-laws for the time being in force in the district."

The Arbitrator had stated a case seeking the direction of the Court as to whether the claimant, the lessee of the premises, was entitled (*a*) to any sum for trade disturbance or loss of his licence; (*b*) any sum for trade fixtures; (*c*) any greater sum that he would be otherwise entitled to by reason of a portion of the premises being licensed premises; and (*d*) if no compensation was payable in respect of the loss of the licence, whether, apart from the question of the premises being licensed premises, any award for trade disturbance or loss of trade should be made.

We refer to the case on the point as to compensation for fixtures and trade disturbance. The Court held that the words, "land including any buildings thereon," in the subsection comprises everything which appertains to the premises compulsorily acquired, including fixtures; that the measure of compensation in the case of land which has been included in the scheme on account of the sanitary condition of the premises thereon, or because the premises were dangerous or prejudicial to health, was intended by the Legislature to be inclusive, and no additional sum may be awarded for trade disturbance or for loss of trade. The licence was also held not to be subject to compensation for a variety of reasons, but we quote the following passage from the judgments: "The facts as to the existence of the house and business and of the licence are irrelevant for the reason that the statute excludes compensation for the building. . . . In other words, the statute by limiting the compensation to the selling value of the cleared site excludes compensation for anything else, and though the suitability of the site for a public house, and for that matter for any other kind of enterprise, is, of course, an element in its selling value, the fact of the existence of a licence perfectly useless apart from the buildings which are not the subject of compensation and which are to be treated as having been

cleared away, cannot affect the selling value. To hold the contrary would seem tantamount to saying that compensation can be given in a roundabout way for goodwill, and that principle if it were applicable could not be confined to licensed premises."

It will be seen that this decision states the operation of the subsection in clear language and does nothing to diminish its rigour, which has been the subject of so much complaint.

Personal Injuries.

There are some instructive observations on the law of personal injuries contained in the decision of the Privy Council in a case from Canada, Letang *v.* Ottawa Electric Railway Co. (1926, A.C. 725), the law applicable being the same in this case in England and Canada.

It is unnecessary to state the facts in any detail: it will be sufficient to say that the platform erected for users of the electric tramway was on a bank considerably above the level of the River Ottawa. In winter, the inhabitants on the opposite side of the river cross on the ice and then ascend to the tramway level. To assist them in climbing up the bank, the Company had built a series of concrete steps which were habitually used by a number of passengers every day—some 700 to 800.

The plaintiff was suing for personal injuries sustained by his wife when using these steps one wintry day, when they were in a dangerous condition, owing to water having flowed down the steps and then frozen. The two first Courts had found in favour of the plaintiff, but on appeal to the Supreme Court of Canada the majority of that Court had set aside the judgments on the ground that the dangerous condition of the steps was so obvious that notice of the danger was to be imputed to the plaintiff's wife, and that, consequently, the Company owed no duty to her in respect of it. There was another finding as to an alternative means of access, but the Judicial Committee expressed the opinion that this would have been just as dangerous, so the judgment in the Privy Council turns on the first point.

The case was treated as one where the plaintiff's wife was an invitee of the Company, coming under the familiar rule laid down in Indermaur *v.* Dames (L.R. 1 C.P. 274) as to invitees, "That he using reasonable care on his part for his own safety is entitled to expect that the occupier shall on his part use reasonable care to prevent damage from unusual danger which he knows or ought to know; and that where there is evidence of neglect the question whether such reasonable care has been taken by notice, lighting, guarding, or otherwise, and whether there was contributory negligence in the sufferer must be determined by a jury as a matter of fact."

The Judicial Committee found that the Company had exercised no care as to the steps, as their contention had been that they had no duty in regard to them, as the steps were not part of their premises, but they had relied upon the defence of contributory negligence and especially on the maxim *volenti non fit injuria*. It was pointed out that it was a mistake to treat that maxim as if it was "*Scienti non fit injuria*." Knowledge is not sufficient for the defendant to prove to place the onus on the plaintiff of disproving contributory negligence, and the following passage from the judgment of Mr. Justice Wills in Osborne *v.* London & North Western Railway (21 Q.B. 220) was approved: "If the defendants desire to succeed on the ground that the maxim *volenti non fit injuria* is applicable, they must obtain a finding of fact that the plaintiff freely and voluntarily with full knowledge of the nature and extent of the risk he ran, impliedly agreed to incur it."

It must be understood that the law as above stated is that applicable to the case of an invitee, a person coming upon premises on lawful business.

An Arbitration Point Under the Acquisition of Land Act.

A point under the Acquisition of Lands (Assessment of Compensation) Act, 1919, arose in the recent case, Gross, Sherwood & Heald, Ltd., *v.* Essex County Council, briefly reported in the *Times* of October 23. The plaintiffs were the owners of certain land on the banks of the River Witham, which were being compulsorily acquired for the construction of a bridge to carry a new arterial road, and an arbitration was proceeding before one of the arbitrators appointed by the Reference Committee under that Act to deal with such cases. During the hearing this gentleman became seriously ill and on June 11 wrote to the secretary of the Reference Committee resigning his appointment as an official arbitrator, a resignation which appears to have been accepted on August 1, and the Reference Committee then appears to have appointed another arbitrator to take his place. In the interval before the resignation became effective the Arbitrator had improved in health and was able to attend to the business of his own firm, and the plaintiffs contended that the new appointment was invalid, as there was no power to appoint another arbitrator where one had already been appointed under the rules made under the Act, and they sought to restrain the defendants from proceeding with any arbitration otherwise than before the original arbitrator.

The Court held, however, that when an arbitrator on the panel becomes incapable of continuing an arbitration the Reference Committee has authority to replace him by someone else. The case is very briefly reported, and we have not the rules before us, but it must be noted that the case was one of voluntary resignation. If, however, a new arbitrator could not be appointed the question would indeed be serious in a case where an arbitrator had become unfit to act.

LAW REPORT

KING'S BENCH DIVISIONAL COURT.

(The Lord Chief Justice and Justices Avory and Salter.)

BUILDING LINE DISPUTE.

George Wilks, Ltd., v. Middlewich Urban District Council.

IN this case, heard on October 13, Messrs. Geo. Wilks, Ltd., who carry on the business of grocers at Middlewich (Cheshire), appealed from a decision of Justices for an alleged offence under the Public Health (Streets and Buildings) Act, 1888.

It appeared that in 1915 the appellants set back their shop front supporting the upper floors of the building by pillars and an end wall. The vacant space was paved, which was used by the public. Recently, however, they decided to return to the original line and commenced erecting the shop front on the old site. The local Council intervened, alleging the contravention of the provisions of the Public Health (Streets and Buildings) Act, 1888, on the ground that the building line was being exceeded. Proceedings were subsequently taken before the Justices and Messrs. Wilks were fined 5s., and they now appealed on the ground that the original building line had been preserved by the existence of pillars and the overhanging upper stories. It was contended that there had been no putting forward of the frontage and that in the circumstances nothing more had been done than a return made to the state of affairs that existed in 1915.

After hearing arguments, the Court dismissed the appeal.

The Lord Chief Justice, in giving judgment, said that in his opinion there was evidence on which the Justices could decide in law that an offence had been committed, even though pillars might exist to show where the old frontage was. The words of the Act were such that it could not be argued with success that the building line had not been altered.

Mr. Justice Avory and Mr. Justice Salter concurred and the appeal was accordingly dismissed, with costs.

EXHIBITION NOTES

THE ROYAL INSTITUTE OF PAINTERS IN OIL COLOURS.

As always happens, the galleries of the Royal Institute in Piccadilly make a brave show. This current exhibition of the Royal Institute of Oil Painters is very attractive in its general effect, but the proportion of any work of outstanding quality is very small and one wonders again why so many paint pictures which make no appeal to our finer senses. The poetic vein is generally hard to find, and we meet with few even amongst those with the best command of technique who are able or willing to treat us to the poetic aspects of things such as Tom Robertson's fine canvas of "Dawn." There is in this admirable work a strong appeal to those who can appreciate the quiet solemnity of such a natural scene. There is genuine poetic feeling, too, in the beautiful picture of "The Grey Church, Rusche," by Frank Spenlove-Spenlove, where the representation of a winter afternoon is so feelingly expressed. It is pleasant to look upon the picture of "Repose," by Jas. Quinn, for it is a signal example and, unfortunately, an unusual example, of the right function of a frame; the combined effect of frame and picture is charming. We find something almost like a new note in the picture of "The Cathedral Mountain, Canadian Rockies," by Leonard Richmond, who has given us a fine piece of tone and colour, producing an effect of breadth and dignity. There are many things which arrest one's attention, such as Davis Richter's gorgeous flower pieces, the "Swanage Bay," by Moffat Lindner, "The Golden Age," by W. E. Webster, the finely-composed landscape of "Trepied," by Sir H. Hughes Stanton, the delightful tones of colour in "Confidences," by M. L. Lee-Hankey, the fine colour scheme of "Traghetto della Casson," by Borlase Smart, and the pleasant colour in "The Green Gate," by Dorothea Sharp.

FINE ART SOCIETY.

The memorial exhibition of big game by the late M. Kuhnert, at the Fine Art Society, is well worth seeing. This artist not only depicted big game to the life, but he made it live in its surroundings, and in many cases made his subjects the centres of fine pictures. His large subjects, of "Wild Cat" (81) and "Snow Leopards" (18), are really beautiful pictures of fine decorative effect and good colour.

MEETINGS

FRIDAY, *October* 29.

Architectural Association R.F.C.—"Rugger" dance. At Gunter's Restaurant, 1, Tenterden-street, Hanover-square. 9 p.m. to 2 a.m.

Royal Sanitary Institute.—Mr. C. Porter on "Duties of a Sanitary Inspector." 6 p.m.

Glasgow Architectural Craftsmen's Society.—Mr. J. W. Dunn on "Roads—a Brief History of their Development." 7.45 p.m.

MONDAY, *November* 1.

Royal Institute of British Architects.—Mr. E. Guy Dawber, F.S.A., will deliver his Presidential Address. 8.30 p.m.

TUESDAY, *November* 2.

Royal Institution of Great Britain.—Mr. G. W. C. Kaye, on "Acoustics of Public Buildings." At 21, Albemarle-street, W.1. 5.15 p.m.

WEDNESDAY, *November* 3.

The Royal Archæological Institute.—Mr. A. Vallance on "Looking for an Old Country House." At Burlington House, W.1. 5 p.m.

Institution of Heating and Ventilating Engineers.—Mr. W. E. Fretwell on "Small Hot-Water Supply Systems." At Caxton Hall, Westminster, S.W.1. 7 p.m.

Liverpool Architectural Association.—Mr. T. White on "Housing and Its Difficulties."

Institution of Sanitary Engineers.—Annual dinner. At the Queen's Room, Holborn Restaurant, W.C.2. 7.15 p.m.

THURSDAY, *November* 4.

The Auctioneers' and Estate Agents' Institute.—Mr. W. S. Edgson on "A Few Impressions of Real Estate in America." 7.30 p.m.

SPECIFICATIONS.—XL

By H. V. MILNES EMERSON, A.R.I.B.A.

HEATING ENGINEERS.—*Continued.*

THE foregoing specification can be embodied in the general specification with necessary alterations, if the builder is to carry out the work, or the specification can be used separately if tenders are to be obtained from and the work carried out by a firm of heating engineers or contractors.

The following notes and information will probably be useful when planning and specifying a low-pressure hot-water system :—

When fixing a sectional or other type of boiler a good level foundation must be provided. A twelve section boiler weighs six to seven tons, and any settlement in the foundation will cause the boiler to fracture. If possible, raise the boiler on one course of bricks to add depth to the ash pit. If tied for height, excavate the ashpit 4 in. at back, keeping the base level.

All boilers should be covered with a non-conducting material, which adds nearly 10 per cent. to the efficiency of the boiler and reduces the fuel consumption. The composition can be applied as specified or can be mixed with clean cold water into a thick paste, allowed to stand some hours, and then thrown on to the boiler in small pieces. When the surface is well covered and thoroughly dry, a second coat is put on and finished with a trowel to a smooth surface. The covering is best applied when the boiler is warm and should not be less than 1¼ in. thick.

The water capacity of sectional boilers ranges from 10 to 200 gallons.

The approximate water capacity of pipes is as follows :—

Inside diameter inches.	Water capacity. Gallons per foot run.	Weight of water. Hrs. per foot run.
1	·0340	·340
1¼	·0531	·531
1½	·0764	·764
2	·1360	1·360
2½	·2124	2·124
3	·3060	3·060
4	·5440	5·440
5	·8500	8·500
6	1·2240	12·240

BATHS.—In a full-size bath, 15 gallons of hot water at 130 deg. added to 10 gallons of cold water at 60 deg., will give a depth of 9 in. of water at a temperature of 102 deg. A warm bath should be 100 deg. to 110 deg.

In swimming baths the supply of warm water should be at 75 deg. to 80 deg. To ascertain the size of boiler required, allow an actual heating power of 100 ft. of 4 in. pipe for each 1,000 gallons contained in the bath. A swimming bath containing 100,000 gallons of water would require a low-pressure hot-water boiler (or two boilers) equal to 10,000 ft. of 4 in. pipe actual.

The bases of heat measurement is the British Thermal Unit (B.T.U.), which represents the amount of heat required to raise the temperature of one pound of water one degree, *i.e.*, from, say, 45 deg. (F.) to 46 deg. (F.), 160 deg. (F.) to 161 deg. (F.), &c.

The Continental Thermal Unit, known as the "Calorie," is the amount of heat required to raise the temperature of 1 kilogram of water (2·205 lbs.) one degree centigrade (1·8 deg., F.), therefore one calorie = 2·205 × 1.8 = 3·969 or nearly (4 B.T.U.).

For the heating of buildings heat is commonly generated by burning fuel. All fuel contains energy in chemical form, and when the fuel is burnt this chemical energy is converted into heat by the chemical combination of oxygen with the combustible elements of the fuel, producing carbon dioxide, water vapour and unconsumed air, which are called the products of combustion.

In fuel, the chemical energy is contained in the form of carbon, hydrogen or sulphur, together with a certain amount of ash and water. As neither the ash or water will burn they are of no use for heating.

Carbon when completely burnt generates about 14,000 B.T.U. per lb.; whilst the same quantities of hydrogen and sulphur will generate about 62,000 B.T.U. and 5,500 B.T.U. respectively.

If the amount of carbon, free hydrogen and sulphur contained in 1 lb. of fuel is known, the amount of heat given off by that quantity of fuel when burnt can be readily ascertained.

Taking as an example the best Anthracite coal given in the following table, 1 lb. of such fuel will approximately consist of :—

·95 lbs. of carbon.
·015 lbs. of uncombined hydrogen.
·005 lbs. of sulphur, and
·03 lbs. of ash and water.

The amount of heat energy this 1 lb. of coal will give is :—

			B.T.U.
Carbon..	·95	× 14,000 =	13,300
Hydrogen	·015	× 62,000 =	930
Sulphur	·005	× 5,500 =	27
Ash, &c.		Nil	—
Total			14,257

Table A gives the approximate composition of fuels generally used for heating purposes and the total B.T.U. from 1 lb. of fuel. Owing to variations in the composition of graded fuels, the B.T.U. given in the last column can be taken for practical purposes.

Fuel will not burn properly unless it is supplied with a suitable quantity of air. The heat produced depends on the amount of the combustible elements which combine with the oxygen of the air. If too much air is used, the heat is diluted and the temperature will be reduced. If too little air is used, the carbon is only half burnt, producing black smoke and carbon monoxide and reducing the B.T.U. to approximately 4,450 per lb. The carbon monoxide is combustible under proper conditions, and will give off the remainder of the heat which the carbon itself would have given off had it been fully burnt to begin with. If, however, the carbon monoxide passes away to the atmosphere unburnt, the remainder of the 14,000 B.T.U. per lb. of carbon is wasted, that is 9,550 B.T.U. are wasted for every lb. of fuel burnt.

It is a known rule that thin fires give best results, but thin fires in heating boilers means an attendant's too frequent attention. With a thick fire of any fuel the air entering at the bottom combines with the glowing fuel and forms carbonic acid, a product of perfect combustion, but this product having to pass through the fuel above picks up carbon to form carbonic oxide. This portion of carbon is lost as it is not fully converted into heat units. To correct this action to a large extent one firm of sectional boiler makers have provided perforated fire bricks to the sides of the fire bricks, which allow air to be admitted to the fuel up the sides of the firebox, the supply being controlled by hit and miss ventilators.

Boiler efficiency is based upon the amount of the heat generated that is actually transferred to the water and used in the installation. It is not possible to transfer the whole of the heat generated to the water, a proportion escapes through the boiler itself, through the firebars and flues, and up the chimney. Not more than 60 to 75 per cent. of the heat generated is actually transferred to the water and used in the installation. For ordinary working, with fuel having a calorific value of from 12,000 to 12,500 B.T.U. per lb., not more than about 8,500 B.T.U. per lb. of fuel burnt can be calculated as transmitted to the water. This gives an efficiency of 60 to 66 per cent. From this it is possible to determine how much fuel is required to supply a given number of heat units per hour. If an installation is required to produce say, 500,000 B.T.U. per hour,

TABLE A.

Type of fuel.	Approximate composition per cent. Carbon.	Total Hydrogen.	Sulphur.	Ashes &c., exclusive of water.	Total B.T.U. from 1 lb.	Total B.T.U. for practical purposes.
Anthracite, best	95	1·5	0·5	3·0	14,257	14,700
„ ordinary	90	3·0	1·5	5·5	14,542	
„ poor	85	3·0	2·0	10·0	13,870	
Coal, best ..	84	5·0	2·0	9·0	14,970	14,150
„ ordinary	80	5·0	1·0	14·0	14,355	12,500
„ poor ..	75	6·0	1·0	18·0	14,275	10,000
Coke best ..	97·5	—	0·8	1·7	13,694	14,000
„ ordinary	85	—	1·5	13·5	11,982	12,500
„ poor ..	65	—	1·5	33·5	9,182	9,000
Petroleum ..	85	14·5	—	0·5	21,899	20,900

The weight in lbs. and volume of fuel is as follows :—

Type of Fuel.	Weight of 1 cubic ft. broken.	Volume of 1 ton in cubic ft.
Anthracite	63	36
Coal	62	37
Coke	30	75
Petroleum	54 lbs. per cubic ft.	

TABLE B.—EMISSION OF HEATING SURFACE IN B.T.U. PER HOUR WITH AIR TEMPERATURE 60 DEG (*See p. 706.*)

Temperature of water (with air at 60 deg.).

Temperature of water. Difference.	120° 60°	130° 70°	140° 80°	150° 90°	160° 100°	170° 110°	180° 120°	190° 130°	200° 140°
Uncoated pipe									
1 ft. run— ½ in.	30	36	43	50	57	64	71	78	86
„ ¾ in.	35	43	50	58	66	74	82	90	99
„ 1 in.	42	50	60	70	79	89	99	109	119
„ 1¼ in.	51	62	74	86	98	110	122	134	147
„ 1½ in.	58	70	82	94	108	121	135	149	163
„ 2 in.	68	82	96	110	126	142	159	176	197
„ 2½ in.	85	103	120	139	158	178	199	219	240
„ 3 in.	94	113	132	152	173	196	218	240	262
„ 4 in.	121	145	170	194	220	247	275	301	328
„ 5 in.	146	174	201	230	261	292	323	354	385
„ 6 in.	170	200	233	267	301	336	370	406	440
1 sq. ft. of radiator									
Single column	80	98	118	135	156	177	198	220	241
Two columns..	79	96	115	133	154	173	194	216	237
Five columns..	74	90	108	124	144	162	182	202	222
Window, 12 in. wide	74	90	108	124	144	161	181	201	221
Wall, 3 in. wide	79	96	115	132	154	173	194	215	236

For any other air temperature find the difference in temperature between air and water and use the column corresponding to that difference.

the amount of fuel burnt per hour will be 500,000 ÷ 8,500 = about 59 lbs.

The amount of heat given off by 1 sq. ft. of heating surface at a given temperature depends upon the shape of the surface and on its exposure to cold air. The number of B.T.U. which a hot air system is capable of emitting per hour for each square foot of radiation is 144. To ascertain the amount of radiation required to maintain a given temperature, ascertain the loss due to infiltration per hour in B.T.U. and divide this amount by 144, which will give the amount of heating surface required.

Table B (*See p.* 705) shows the amount of heat given off by 1 ft. run of pipes at various temperatures, and by 1 sq. ft. of radiator surfaces. The actual surface of a pipe or radiator is not important, the main point is, how much heat it gives off when maintained at a given temperature. One sq. ft. of pipe surface gives off more heat than 1 sq. ft. of radiator surface because it is more exposed to the air. Radiators should be designed with wide air spaces to ensure the largest possible emission of heat. Loops should be 3 in. centre to centre. When radiators are used in front of fresh air gratings, the quantities given in the following table should be increased by 30 per cent. or more according to the amount of air passing over the radiator.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting!—Ed.

Slating Swept Valleys.

[Reply to "Tiler," October 8.]

Sir,—I think I am correct in saying that the swept valley was invariably contrived between a minor gable and the main roof; *i.e.*, where the ridge of the former was at a lower level than that of the latter. The sweep of the valley was then resolved into the main pitch by sweeping the ridge line of the minor gable upwards. If such a playful trick of the craftsman could be interpreted in mathematical terms I should say that the two valleys would be two converging segments of cylinders intersecting at the top into an upward curve defined by the ridge.

I hope I am not begging the question in this way, but I feel convinced that the swept valley would look amiss between roofs of level ridge either of the L or T form—at any rate if treated in the traditional tile way. In the latter your correspondent must realise that the courses of tiles do not follow round level at the valley but curve definitely upwards on either side with a square filling in the centre of the valley, so that to finish this treatment to a level ridge would definitely jar. I do not wish to suggest that it is impossible to have a rounded valley or hip in slate roofs of level ridge, but only that the treatment must be dealt with geometrically and mechanically, and not with that pleasing flow found in traditional tile work. If the treatment is desired I should suggest firring round the valley so that the battens follow round horizontally, and the slates thereon would have to be cut wedge-shaped to fit. The ridge problem would then find solution as in Figs. 1 and 3. (Oct. 8.) The treatment becomes at once an expensive labour, whereas its origin in tiled construction was merely to form a valley without the aid of specials. Tradition.

Establishment Charges.

[Reply to "Doubtful," October 22.]

Sir,—Establishment charges include all outgoings, other than the cost of the labour and materials, payable in connection with the work, prior to any profit being obtained. Therefore, all outgoings in respect to employers' liability under the National Health Insurance Acts should be included and considered in the percentage to be added for establishment charges, to the prime cost of every item. Law.

Relaying Drains—Question of Responsibility.

[Reply to "Amateur," October 15.]

Sir,—If, as is now stated, the premises are within the Metropolis and inasmuch as the Metropolis Acts define "drain" as including any drain for draining any group or block of houses by a combined operation under the order of any vestry or district board, which definition was extended by the Act of 1862 to cover combined drainage to the order or direction of, or with the sanction and approval of, the Metropolitan Commissioners of Sewers before January 1, 1856, then, as in this case, there is an approved plan, the combined pipe or conduit running under the building, whatever number of houses it runs under, would appear to be a "drain," and cannot because of the discrepancy referred to be claimed as a "sewer."

Drains.

Sand Lime Bricks.

[Reply to "B," October 22.]

Sir,—I am living in a house built several years ago, with 9 in. sand lime brick walls, pointed up outside, and the plaster inside is perfectly hard and sound. I understand these bricks can be used with cement mortar, but good lime mortar is quite satisfactory, made up about 2½ to 1, or 3 to 1 N. Graveley.

Sir,—As an old builder, I can assure your correspondent that sand lime bricks are perfectly satisfactory for cement mortar and for plasterers. Cement mortar adheres to them with great tenacity when wetted, and to any kind of gauged stuff, whether it is lime, plaster, cement, sirapite, Keen's, or any similar material. If your correspondent would like to see some finished work on sand lime bricks, I shall be pleased to show him some. T. P. W.

Hinges for Concealed Door.

Sir,—Could you tell me which type of hinges or butts is required to hang a concealed door in a partition wall? The side of the door carries a dado, heavy base or skirting, and dado cope. Above is an ordinary panelled wall, divided up into sections. I have been advised that "French point" hinges are necessary for a door of this kind, but I cannot learn where they are to be obtained. Scot.

Assignment of Lease: Liability for Rent.

[Reply to "Richmond," October 15.]

Sir,—Most leases contain an express covenant (*inter alia*) to pay rent; therefore, after an assignment, the lessor can continue to look to the original lessee to discharge the rent and other liabilities of the lease, even though the latter has parted with the legal estate by assignment, and has no power to bring about its determination. Also, even though the lessor has a remedy against the assignee for the rent and for breach of the covenants running with the land.

The remedy as against the lessee is on priority of contract; that against the assignee is on priority of estate. Inasmuch as the liability of the assignee is entirely dependent on priority of estate, it follows that it ceases as soon as he re-assigns, except in respect of rent accrued and that is due by him, and for breaches of covenant incurred by him at such assignment. It makes no difference to the assignee's liability even if the new assignee is a "man of straw."

It follows, therefore, that the present assignee is the principal obligee under the covenants, and that the original lessee is in the position of a surety, and that the lessor can either sue the original lessee, or the present assignee or he can sue both at the same time. But in the result he can only have one satisfaction to his claim, not a satisfaction from both.

"Richmond" will gather that in the matter referred to, and on the particulars furnished, there is no remedy against either B, C or D, since their liability in each case is terminated on re-assignment. The remedy is against either A, the original lessee, or E, the present assignee, or both of them. Inasmuch as E is bankrupt, "Richmond" can only distrain on E for six months' rent accrued due prior to the order of adjudication, though he may prove under the bankruptcy for the surplus due for which the distress may not have been available.

Lease.

Legal Questions.

[Reply to "Doubtful," October 15.]

Sir,—"Doubtful" asks many questions which to answer fully would much exceed the space that could be allowed in replies thereto. The following short replies may, however, be of use and assist him in his difficulties:—

(1) The definition of "owner" in the Town Improvement Clauses Act, 1847, used with reference to any lands or buildings in respect of which any work is required to be done, or any rate to be paid, means "the person for the time being entitled to receive, or who, if such lands or buildings were let to a tenant at rack-rent, would be entitled to receive the rack-rent from the occupier thereof."

(2) It cannot be said that there is any alteration to the above definition, for both under the Act of 1847 and the Rent Restrictions Acts, 1920-25, the definition of owner would apply to a tenant who has sublet, such as is referred to.

(3) The provision of the Towns Improvement Clauses Act, 1847, with respect to ruinous or dangerous buildings, are, for the purposes of regulating such matters in urban districts, incorporated with the Public Health Act, 1875, and their powers may be made to apply to rural districts by order of the Ministry of Health under Section 276 of the 1875 Act. Under the provisions of Section 75 of the 1847 Act, in the circumstances given, the local authority can order the owner, or in his default the occupier (if any) of such building, wall, or other thing, to take down, rebuild, repair, or otherwise secure, to the satisfaction of their surveyor, the same, or such part thereof, as appears to them to be in a dangerous state. This would include the complete demolition of the structure, if needs be, within the time fixed by the justices making the order.

(4) If the owner defaults, the occupier is responsible for carrying out the necessary work under the order, and if neither the owner or the tenant complies with the order or their obligations thereunder, and the circumstances arise as detailed by "Doubtful," then, clearly, the local authority is, under the section last quoted, entitled to and, indeed, must do all the work required; taking any steps necessary to secure the ejectment of the tenants in order to secure "such building, wall, or other thing," and recovering from the owner, if he can be found, all expenses of so doing by levying distress if necessary. If he cannot be found, then the local authority may take the house or ground, holding or making compensation therefore to the owner, after deducting the expenses referred to. For the purposes of the Act the local authority would proceed before the justices for a closing order, obtaining possession under the County Courts Act, 1888 (as extended by the County Courts Act, 1903), when the annual value does not exceed £100, or in the case of small tenements, under the Small Tenements Recovery Act, 1838. In the former case a warrant for possession will be issued which the high bailiff will enforce. In the latter case a warrant for possession will be issued to and enforced by the police; and in the event of the tenants having nowhere to go and no means, they will be lodged in the workhouse. It should be noticed that power in respect to a dangerous structure lies with the surveyor, and under the Act of 1847, on an order being given, he is obliged to make the building safe. If in doing so the party wall is exposed and damage accrues as described, no liability attaches to the surveyor to the local authority; any such liability rests entirely with the owner of the demolished premises only, or the leaseholder thereof if the latter holds under a repairing covenant. In the event of the last-named not being accessible the owner might be held liable in that he had not enforced the covenant to repair as evidenced by the dangerous state of the premises necessitating demolition.

Law.

THE BUILDING TRADE

THE CENTRAL VALUATION COMMITTEE

THE first meeting of the Central Valuation Committee, which has been constituted by the Minister of Health under Section 57 of the Rating and Valuation Act, 1925, to promote uniformity in valuation, took place on Wednesday, October 20, at the offices of the Ministry of Health. Before the Committee proceeded to formal business, the Minister, the Right Hon. Neville Chamberlain, in an address to the members, said the main object of the Committee was "to promote uniformity in the principles and practice of valuation throughout England and Wales," and it was to be noted that, although London was for the moment excluded from the operation of the Act, it was represented on the Committee and was expected ultimately to share the general uniformity.

The Committee's task had been simplified by the alterations of the law provided for in the new Act. For example, the Committee would not have to deal with the Overseers of 14,000 parishes, but with some 1,770 rating authorities only, each of whom had, or soon should have, a competent staff and would act in co-operation with the appropriate Assessment Committee. Moreover, instead of 600 Union Assessment Committees, they would only have to deal with about 350. In each of the county boroughs and in some of the counties there would be only one Assessment Committee under the new Act. The Committee's task, moreover, would be lightened by the fact that there would be one single valuation for all rates instead of different valuations for the poor rate, the county rate, and, in some areas, the separate borough rate. Again, instead of the multifarious scales of deductions which had hitherto been in operation for the purpose of reducing the gross value to the rateable value, one uniform scale had been laid down in the Act for the different classes of property.

The Committee's task, though difficult, was well worth doing. It would be their duty to try to induce each of the 1,770 rating authorities to conform, in preparing the new valuation lists, to some national standard or level of valuation, to induce those authorities to adopt a uniform practice on points on which diversity of practice in regard to valuation was permissible by law, and had in fact occurred in the past, and to persuade Assessment Committees and County Valuation Committees to help in securing national ideas and standards in regard to valuation generally.

Parliament had been very cautious and the Committee had no executive powers under the Act. It was contemplated, at first, at any rate, that they should be an advisory body depending upon good will and persuasion in conference to effect their purposes; but he reminded them that, as he had hinted to the House of Commons in moving the Third Reading of the Bill, their work and even their present form might ultimately develop upon more authoritative lines. Meanwhile, the Committee were by conferences and otherwise to elicit facts and opinions, and when they had formulated their own views to make representations to him. It would then be for him, as the Minister, to take such action as he thought necessary upon those representations.

As matters of urgency, there were two questions to which the Committee should address themselves at once. The first was the national standard or level of valuation which was to be adopted. The first new valuation lists in many areas would have to be prepared in time for them to come into operation in April, 1928, and it would be necessary for the rating authorities of those areas to start upon the preparation of the draft lists early in 1927. It was essential that, before the authorities started on the work of making entries in their draft lists, they should have the Committee's considered suggestions and recommendations. He hoped, therefore, that the Committee could let him have their representations before the year closed upon this important question of the level of valuation to be adopted. The second question was the extent to which it might be necessary or desirable to engage the services of expert valuers.

He did not anticipate that the expenses of the Committee would be very heavy, but, such as they were, the Act contemplated that they should be obtained from the local authorities, and he hoped that, in view of the importance of the work and the fact that the Committee were undertaking it for those authorities, they would readily give the Committee the relatively small sums required.

The Committee then proceeded to the formal business on the agenda, and Mr. Thomas White (Liverpool Corporation) was elected Chairman; and Mr. E. J. Holland (Chairman of the Surrey County Council), was elected Vice-Chairman. Mr. A. E. Joll, of the Ministry of Health, was appointed Secretary of the Committee.

THE ECONOMIC SIZE OF PIPES

By GEO. W. GREY. F.S.I.

IT can be stated with some certainty that in the majority of cases drain and waste pipes carrying away foul matter are too big. In addition to the waste of money in first cost, there is the further disadvantage that such pipes are not as self-cleansing as they would be if of the minimum bore to carry the maximum flow. A drain of too small a bore will overflow, but is less likely to get stopped, from the very fact that, being too small and therefore running at full capacity, the flow has a scouring effect. Drains are not usually found to be stopped by articles getting down them, and when this does take place, the stoppage generally occurs at the interceptor.

The trap to the ordinary closet, which is the biggest inlet to the ordinary drain, is a little less in bore than a 4 in. drain pipe, and nothing that would pass through the ordinary w.c. trap should be capable of causing a stoppage to a well-planned, well-laid, and sufficiently flushed system of pipes of 4 in. bore, as in addition to the trap to an ordinary closet being less than 4 in., the turn in the trap is very sharp, making it difficult to pass a solid, such as a scrubbing brush, unless small in size.

Stoppages mostly occur from there not being sufficient depth and force of water to carry solids through the drains, shallowness resulting in some solid matter being left high and dry, or being arrested by a roughness of pipe or joint, the power of the water not being sufficient to overcome the friction. This forms a nucleus to pick up other solids, these in their turn still more arresting the flow. More matter is added, until a tight and compact mass results.

In the past, judging by old buildings, it was considered the right thing to use a 9 in. pipe, even for houses little bigger than cottages. When removing these large and old drains they will be found silted up with accumulations of foul matter, with only just sufficient area left to allow the water to percolate away.

The diameter of drains has lessened as sanitary science has advanced, and it can be noted that those districts which are up to date in sanitation, ask for small diameter drains, while the more old-fashioned districts press for large diameter. The ruling of one local authority was to permit of a 4 in. diameter pipe taking only one gulley, soil pipe, &c., and that before an additional connection is made, the drain must be increased to 6 in.

The cross-section of a 4 in. pipe is 12.566 sq. ins.; that of a 6 in. pipe is 28.2744 sq. ins. This means if two 4 in. pipes were running full bore, the 6 in. pipe would not be full bore, and would not, therefore, be so fully cleansed as it would be if it were of less diameter. In addition to this, the flush, as it travels lengthens out, giving lesser depth as it gains distance, and if there were sufficient depth to carry away the solids when first entering the 6 in. diameter pipe, it might not be so as the distance increases.

If the connections carry more than one w.c., and the flush from one w.c. is sufficient to fill the 4 in. pipe full bore, it can be assumed that it will not be a frequent coincidence that both w.c.'s are used simultaneously. Even if a number of w.c.'s flushed simultaneously were connected to a drain not of sufficient bore to carry away the flush from all, the only result would be a delay in the emptying of the closet basin.

With the normal pedestal closet and flushing cistern, overflow of the basin is not likely to result, as the normal pedestal closet is of sufficient size to take the contents of the flushing cistern ordinarily used, and a flush cannot be immediately repeated, a period of time being required for the flushing cistern to re-charge, and during this period the closet should have emptied itself.

In examining plans the lack of thought as to size is often apparent. Four-inch soil pipes, with a 6 in. drain and 6 in. soil and drain pipes taking one w.c. can be met with. All drains carrying foul matter accumulate foul gases. The larger the drains the greater the accumulation of these foul gases. With a big drain more water is required at each flush properly to cleanse the pipes. Water in any district is not generally obtainable without restriction or expense.

Where there is a supply authority and payment is made other than by meter, such as rateable value, the capacity of the flushing cistern is generally restricted, the two-gallon flushing cistern being a very usual size, and this is not sufficient to permit of cleansing a pipe of larger bore than 4 in. If the supply is a private one, pumping is generally necessary, and the more water used the greater the cost for pumping.

The larger the drain, the larger the interceptor, and therefore the greater the quantity of water required at each flush to change the water in the trap.

Lack of fall decreases velocity of flow, but lack of fall has not as great an influence upon a drain being self-cleansing as has smallness of bore. If this were so, vertical soil pipes would never become foul. The usual rule for fall to house drain is one in forty for 4 in., one in sixty for 6 in., and one in ninety for 9 in. This rule is well known, but is often misused by increasing the size of the drain to fit the rule. A 4 in. drain is considered to be sufficient to do the work, but the fall is restricted and the rule misapplied by putting a 9 in. drain because the fall is one in ninety.

Soil pipes, sink wastes, &c., of too big a bore are more likely to become foul and choked up, as with drains which are too big. Soil pipes which have been long in use are found to have their bore reduced by furring to a diameter of 3 in. to 3½ in. This furring will often be found to have become hard and brittle, indicating age, and the bore is found smooth, indicating that the volume of the normal flush, or that owing to its force being broken by passing through the trap, is only sufficient to cleanse a bore of 3 in. This fact of a 3½ in. soil pipe being the maximum size to be self-cleansing, has induced the authorities in the Metropolitan area to permit soil pipe of this diameter.

Several types of syphonic closets have an outlet of 2½ in. diameter only, and in spite of this small bore they do not appear to ever become choked. Waste pipes connected to the wastes of baths, lavatories, and sinks will, like drains, be more self-cleansing if small.

Baths in hotels, and sinks to restaurants, and lavatory basins for public use need to be bigger than those to private houses to permit of quick discharge. In these cases the small bore must give way to this necessity.

In many cases waste pipes are fixed of larger bore than the waste or trap. This is particularly bad, as time of emptying is governed by the smaller bore, and the waste pipe can never run full, and therefore never becomes properly cleansed.

THE DURABILITY OF BUILDING STONE

A LECTURE on "Building and Building Stones" was delivered recently at Manchester University by Mr. Edgar Morton, lecturer on Applied Geology. The lecturer said that the decay of many of our national monuments, cathedrals, churches, and large buildings was due to an unfortunate lack of knowledge of the durability of stones used by our predecessors, and it was significant that even to-day, whilst the most elaborate technique had been developed in connection with all forms of metal used in building, very little had been done in the case of building stones. Architects and engineers who would not for a moment dream of utilising iron or steel which was not in accordance with the strictest specification, frequently had to accept large quantities of untried stone about which very little was known.

The qualities of a good building stone were strength and durability. By strength was meant the ability of a stone to resist the various stresses and strains which occur in a masonry structure, and by durability was meant the relative resistance which a stone will set up to the various natural and artificial agents causing decay. Various researches had been conducted both at home and abroad with a view to determining the relative value of the strength and durability of well-known building stones. The tests made were of a mechanical nature and the data obtained served as a valuable means of comparing the different types of stones tested. Unfortunately investigators had not used the microscope, which would have added materially to their valuable work. The strength of a stone was obviously dependent on the shape and size of its component mineral particles as well as on the nature and amount of the cement which bound those particles together, just as the strength of concrete was dependent on the size and shape of the aggregate and the nature of the matrix. Mechanical strength tests should therefore be made in conjunction with detailed microscopic investigation of the texture of a stone.

Again, only by the microscope could the presence of mineral particles in a state of incipient decomposition and unstable and insufficient cementing material be detected—a measure of the durability of a stone. It was in this direction that present and future research must trend. The lecturer then demonstrated by means of micro-photographs the relationship which existed between the texture and strength of the three chief groups of rock from which building stones are derived in this country, namely, the sandstones, limestones, and granites. It was a pity, he said, that owing perhaps largely to cost and ease of working, so much Portland stone and other colitic freestone was being used at the present time, especially since the apparently clean surface which it presented was partly due to the constant dissolving away of the face of the stone by acidulated rainwater.

Acoustics of Liverpool Cathedral.

In reply to the remark of the *Times* musical critic that "there is no means of studying the acoustic properties of a building which does not exist, or exists only on paper," M.. Vernon Crompton, F.R.I.B.A., says that that idea "might have been correct five or six years ago, but it no longer holds true. For buildings of ordinary size and not too complex I think we can say," he writes, "that a building with reasonably good acoustic qualities can be designed on paper which, when built, will be found to fulfil the expectations of the designer. It is probable that research has not advanced sufficiently for any one to be quite sure that a complex problem like Liverpool Cathedral could be tackled with certainty as to results, but after the recent work done by the Building Research Board and others, no one nowadays need lay his plans in the dark."

NEW BUILDINGS IN LONDON

Betterton-street.—PREMISES.—Messrs. Canonbury Construction Co., Ltd., of Canonbury-street, N.1, are erecting new premises in Betterton-street, Holborn, W.C.2. Messrs. H. J. Greenham, Ltd., are doing the demolition work for the scheme. The architect is Mr. J. E. Parr, of the Holborn Borough Council.

Clapham Common.—HALL.—Plans have been approved for Mrs. M. E. Schoneboom, 66, South-side, Clapham Common, S.W.4, for the erection of a palais-de-dance rear of 64 to 68, South-side, Clapham Common.

Cricklewood.—HOUSES.—The Hendon Council has sanctioned plans for the Streather Estates, Edgewarebury-lane, for the erection of 76 houses and 48 garages on the Watford by-pass road, between Cricklewood-lane and The Vale.

Golders Green.—ADDITIONS.—The Golders Green Synagogue are to erect additions to the synagogue in Dunstan-road. The plans have been passed by the Hendon Council.

Middlesex-street.—TENEMENTS.—The City Corporation has just accepted the tender of Messrs. W. Lawrence & Sons, Ltd., of 19, Finsbury-square, E.C.2, for the erection of 24 tenements in Middlesex-street, E.C. The scheme is estimated to cost £27,654. The City Engineer has prepared the plans.

St. Mary Abbot's-terrace.—PREMISES.—New premises are in the course of erection on a site in St. Mary Abbot's-terrace, and Warwick-road. Messrs. Joseph, of 2, Paul's Bakehouse-court, E.C.4, and Mr. C. H. Roberts, are the architects, in collaboration, for this scheme. The builders are Messrs. W. H. Gaze & Sons, Ltd., of 23, High-street, Kingston.

Shrewsbury-road.—HOSPITAL.—The Duchess of York has laid the foundation-stone of the East Ham General Hospital in Shrewsbury-road, East Ham. The architects are Messrs. F. E. Mennie & C. B. Smith, AA.R.I.B.A., of 11, New-court, Lincoln's Inn, W.C.2, and Messrs. Patman & Fotheringham, Ltd., Park-street, Islington, N.1, are the contractors.

Wandsworth High-road. — ADDITIONS. — Messrs. Prestige & Co., Ltd., builders, Cambridge Wharf, Grosvenor-road, S.W.1, are carrying out additions to the "Rose and Crown" public house in Wandsworth High-road. Mr. G. J. MacFarlane, 73, Gower-street, W.C.1, is the architect.

Building Trades' Apprentices.

The London Building Industry Committee, whose duty it is to arrange with contractors engaged on housing schemes undertaken by local authorities within a fifteen mile radius of Charing Cross for the employment and registration of apprentices to crafts in the building industry, especially to those in which there is a recognised shortage, has established sub-committees at Woolwich, Lambeth, Wandsworth, Watford, Dartford, Croydon, Ealing, Richmond, Bromley (Kent), Hornsey, Kingston, Epsom, and Tottenham. A sub-committee is composed of representatives of employers, operatives, local authorities, and education committees.

Obituary.

Mr. Richard St. George Moore, civil engineer, who died in London last week, was born in 1858. He received his education in London and Germany, and in 1876 began a three years' pupilage in the shops of Messrs. Laird Bros., Birkenhead, which was followed by a year under Mr. Thomas Barham, Assoc.M.Inst.C.E. In 1885 he began to practise on his own account in Westminster, and subsequently entered into partnership with Mr. F. W. La Trobe-Bateman, M.Inst.C.E. In the course of his consulting practice he carried out, among other works, the design and construction of St. Leonards pier and of Brighton Marine Palace and pier, the West Hampshire waterworks, and an extension to Ryde pier.

THE DOMESTIC CHIMNEY AND THE SMOKE ABATEMENT BILL

A CRITICISM of the Smoke Abatement Bill now before Parliament was made by Dr. C. W. Saleeby in the course of a lecture on "Sunlight and Health" delivered at a reception given by the Lord Mayor of Newcastle on Monday evening, October 25, in connection with the visit of the British Commercial Gas Association. The speaker quoted from correspondence which he had recently had with the Minister of Health on the Government's attitude to domestic smoke. Writing on behalf of the Sunlight League he had pointed out to Mr. Chamberlain that there were strong reasons for protesting against Clause 5 of the Bill by which local authorities were to be given powers to make by-laws requiring the provision in new buildings "other than private dwelling houses" of such arrangements for heating as were calculated to prevent or reduce the emission of smoke. The words "other than private dwelling houses" should, he said, be deleted. If the principle were accepted that a reform could not be proceeded with unless it could be universally applied at one step, progress would quickly cease. . . . If the clause be passed as it stood at present it was calculated to give the impression that not even a partial solution of the problem of domestic smoke was at hand. He believed that the effect of creating this impression would be definitely to retard the spontaneous adoption of smokeless methods of heating and cooking, especially in existing houses. If, on the other hand, the Government were to show its belief even in the limited efficacy and practicability of existing smokeless methods, public interest would be aroused and a considerable stimulus given to householders in general to investigate the available methods with a view to adopting them in their own homes.

New Institute for Seamen at Hull.

A gift of £10,000 has been made by Sir Henry Samman, Bart., a retired Hull shipowner and former Mayor of Beverley, towards the cost of a new institute and church for seamen at Hull. The total cost will be £20,000.

Canadian Cement.

According to finally revised statistics just issued by the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics at Ottawa, in 1925 shipments of cement from Canadian mills showed an appreciable advance over the total recorded for the previous twelve months. Sales during 1925 totalled 8,116,597 barrels, valued at $14,046,704 as compared with 7,498,624 barrels at $13,398,411 shipped in 1924.

Improvement Schemes in Birmingham.

The recent announcement of a big hospita reorganisation scheme at Birmingham involving the establishment of a new centre on a site adjacent to the University buildings at Edgbaston, has been followed by the gift of the necessary land by Messrs. Cadbury Brothers, Ltd., of Bournville, together with a sum of £5,000 as a donation towards the initial expenses of acquiring and dealing with the land. The area of the land is about 150 acres, of which it is desired that 100 acres considered the most suitable should be reserved for hospital purposes.

A Canadian Dry Dock.

The completion is announced at Esquimault of what is said to be the second largest dry dock in the world. This undertaking, which cost £1,200,000, is equipped with all the latest devices for convenience and safety. The basin, which was cut out of the solid rock and is lined with concrete, measures 1,150 ft. in length, 149 ft. in width at top, 126 ft. in width at bottom, with a depth of 49 ft. 5 in. The dock can accommodate any vessel afloat, and if required can be divided into two sections, 400 ft. and 750 ft. in length respectively.

RATES OF WAGES IN THE BUILDING TRADE

Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.

	Masons	Bricklayers.	Carpenters Joiners	Plasterers.	Slaters.	Plumbers.	Painters.	Labourer
Aberdare	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Accrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Alfreton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Alnwick	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Altrincham	1/4½	1/4½	1/4½	1/4½	1/8	1/4½	1/8	1/3½
Ashford (Kent)	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ashington	1/8	1/8	1/8	1/8	1/8	1/4½	1/8	1/0½
Ashton-under-Lyne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Aylesbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½
Aylsham	1/4½	1/4½	1/4½	1/4½	1/8	1/8	1/8	1/3½
Banbury	1/8	1/8	1/8	1/8	1/8	1/5½	1/5½	1/1½
Barnsley	1/5½	1/5½	1/5½	1/5½	1/8	1/8	1/8	1/3½
Barnstaple	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barrow-in-Furness	1/8	1/8	1/8	1/8	1/8	1/4½	1/4½	1/0½
Barry	1/4½	1/4½	1/4½	1/4½	1/4½	1/6	1/6	1/1½
Basingstoke	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bath	1/6	1/6	1/6	1/6	1/7	1/7	1/7	1/2½
Bedford	1/7	1/7	1/7	1/7	1/7	1/5	1/5	1/1
Berwick	1/5	1/5	1/5	1/11	1/5	1/10	1/9½	1/4½
Bexhill	1/10	1/10	1/10	1/8	1/10	1/8	1/8	1/3½
Birkenhead	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Birmingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bishop Auckland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackburn	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackpool	1/8	1/8	1/8	1/8	1/8	1/8	1/6	1/1½
Bolton	1/6	1/6	1/6	1/6	1/6	1/6	1/8	1/3½
Bournemouth	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bradford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Bradford-on-Avon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Braintree	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Brentwood	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Bridgwater	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bridlington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Brighton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bristol	1/7	1/7	1/7	1/7	1/7	1/8	1/8	1/3½
Bromsgrove	1/4	1/4	1/4	1/4	1/4	1/7	1/7	1/2½
Bromyard	1/3½	1/3½	1/3½	1/3½	1/3½	1/4	1/4	1/0½
Bungay	1/8	1/8	1/8	1/8	1/8	1/8	1/8	11½
Burnley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Burton-on-Trent	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bury	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Buxton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cambridge	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Canterbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Carlisle	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chatham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chelmsford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chesterfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Cirencester	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/1
Clacton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Cranbrook	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Crewe	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cromer	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Darlington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Deal	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/5½	1/0½
Denbigh	1/5½	1/5½	1/5½	1/5½	1/8	1/5½	1/5½	1/1½
Derby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Devizes	1/4½	1/4½	1/4½	1/4½	1/8	1/8	1/8	1/3½
Dewsbury	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Doncaster	1/8	1/8	1/8	1/8	1/8	1/8	1/3½	1/0½
Dorchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/1½
Dorking	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Dovercourt	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Driffield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Droitwich	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Dudley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Durham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Eastbourne	1/6	1/6	1/6	1/6	1/8	1/6	1/6	1/1½
E. Glam.(Mon. Val)	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ely	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/7	1/7	1/7	1/7	1/7	1/7	1/6	1/2½
Exmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Fakenham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Felixstowe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Frome	1/4½	1/4½	1/4½	1/4½	1/4½	1/8	1/8	1/3½
Glossop	1/8	1/8	1/8	1/8	1/8	1/6	1/6	1/1½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/5	1/5	1/1
Godalming	1/5	1/5	1/5	1/5	1/5	1/7	1/7	1/2½
Goole	1/7	1/7	1/7	1/7	1/7	1/7	1/6	1/1½
Gosport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Grantham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/3½
Grays	1/8½	1/8½	1/8½	1/8½	1/8½	1/8½	1/7½	1/1½
Great Yarmouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/8	1/8	1/3½
Grimsby	1/8	1/8	1/8	1/8	1/8	1/8	1/5½	1/1½
Guildford	1/5½	1/5½	1/5½	1/5½	1/8	1/5½	1/8	1/3½
Halifax	1/8	1/8	1/8	1/8	1/8	1/5½	1/8	1/1½
Harpenden	1/5½	1/5½	1/5½	1/5½	1/8	1/8	1/8	1/3½
Harrogate	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hartlepools	1/8	1/8	1/8	1/8	1/8	1/8	1/5	1/1
Harwich	1/5	1/5	1/5	1/5	1/5	1/5	1/4½	1/0½
Hastings	1/4½	1/4½	1/4½	1/4½	1/5	1/4½	1/5½	1/1½
Hatfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/7	1/2½
Hednesford	1/7	1/7	1/7	1/7	1/7	1/7	1/5	1/1½
Hereford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/0½
Herne Bay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/5½	1/1½
Hertford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Hitchin	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Holt	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Huddersfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hull	1/8	1/8	1/8	1/8	1/8	1/4½	1/4½	1/3½
Hunstanton	1/4½	1/4½	1/4½	1/4½	1/4½	1/5	1/5	1/0½
Huntingdon	1/5	1/5	1/5	1/5	1/5	1/4	1/4	1/1½
Isle of Wight	1/4	1/4	1/4	1/4	1/4	1/6	1/6	1/1½
Ipswich	1/6	1/6	1/6	1/6	1/6	1/8	1/8	1/3½
Keighley	1/8	1/8	1/8	1/8	1/8	1/6	1/6	1/1½
Kettering	1/6	1/6	1/6	1/6	1/6	1/7	1/7	1/2½
Kidderminster	1/7	1/7	1/7	1/7	1/7	1/5	1/5	1/1
King's Lynn	1/5	1/5	1/5	1/5	1/5	1/8	1/8	1/3½
Lancaster	1/8	1/8	1/8	1/8	1/8	1/6½	1/6½	1/2
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2½
Leeds	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leicester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leighton Buzzard	1/4½	1/4½	1/4½	1/4½	1/8	1/4½	1/4½	1/0½
Lichfield	1/6½	1/6½	1/6½	1/6½	1/8	1/6½	1/6½	1/2
Lincoln	1/8	1/8	1/8	1/8	1/8	1/5	1/5	1/3½
Littlehampton	1/5	1/5	1/5	1/5	1/8	1/8	1/8	1/1
Liverpool	1/10	1/10	1/10	1/11	1/10	1/5	1/5	1/4½
Llandudno	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Llanelly	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
London:								
12 m. radius	1/9½	1/9½	1/9½	1/9½	1/9½	1/9½	1/8½	1/4½
12–15 m. radius	1/9	1/9	1/9	1/9	1/9	1/9	1/8	1/4
Loughborough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Lowestoft	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Luton	1/6	1/6	1/6	1/6	1/5½	1/6	1/6	1/1½
Macclesfield	1/7½	1/7½	1/7½	1/7½	1/6	1/7½	1/7½	1/2½
Maidstone	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Malvern	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Manchester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Mansfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Margate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Market Harb'rough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Matlock	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Melton Constable	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Melton Mowbray	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Middlesbrough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newark	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Newbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newcastle-on-Tyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newcastle-ur-Lyme	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
New Forest	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Newmarket	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Newport, Mon.	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Nottingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Nuneaton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oakham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Oldham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oxford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Paignton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Peterborough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Plymouth	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Pontypridd	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Portsmouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Preston	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ramsgate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Reading	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Redcar	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Redditch	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Reigate	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Retford	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ripon	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Rochdale	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Rochester	1/5½	1/5½	1/5½	1/5½	1/8	1/5½	1/5½	1/1½
Rugby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Saffron Walden	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
St. Albans	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Helens	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Sawbridgeworth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Saxmundham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0½
Scarborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/1½
Sevenoaks	1/5½	1/5½	1/5½	1/5½	1/8	1/8	1/8	1/3½
Sheffield	1/8	1/8	1/8	1/8	1/6½	1/6½	1/6½	1/2
Shrewsbury	1/6½	1/6½	1/6½	1/6½	1/4½	1/4½	1/4½	1/0½
Sittingbourne	1/4½	1/4½	1/4½	1/4½	1/6	1/6	1/6	1/1½
Southampton	1/6	1/6	1/6	1/6	1/5½	1/5½	1/5½	1/1½
Southend-on-Sea	1/5½	1/5½	1/5½	1/5½	1/8	1/8	1/8	1/3½
Southport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
South Shields	1/8	1/8	1/8	1/8	1/5½	1/5½	1/5½	1/1½
Stevenage	1/5½	1/5½	1/5½	1/5½	1/8	1/8	1/8	1/3½
Stockport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stockton-on-Tees	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stourbridge	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stourport	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Stowmarket	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stratford-on-Avon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Stroud	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Sunderland	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Swaffham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swansea	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Swindon	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Tamworth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Thetford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Torquay	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Totnes	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Trowbridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Tunbridge Wells	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Uttoxeter	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Wallsend	1/4½	1/4½	1/4½	1/4½	1/8	1/4½	1/4½	1/0½
Warminster	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Warrington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warwick	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Wells (Norfolk)	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Welwyn Gar. City	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
West Bromwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Weston-sup.-Mare	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1½
Weymouth	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Whitby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Wigan	1/5	1/5	1/5	1/5	1/5	1/6	1/6	1/1½
Winchester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Windsor	1/4½	1/4½	1/4½	1/4½	1/8	1/4½	1/4½	1/0½
Wisbech	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Wolverhampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Woodbridge	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Worcester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Worksop	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Worthing	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wrexham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Wroxham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0½
Wymondham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
York								

(For rates of wages in the Building Trade in Scotland, see page 7 5.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

NOVEMBER 1. — **Adwick-le-Street.** — HOUSING. — 164 houses, also street works, sewers, surface water drains, and water supply, in connection with the said houses in Doncaster-lane, Adwick-le-street, for the U.D.C. Surveyor, Village-street. Deposit £2 each.

NOVEMBER 1.—**Barnet, Herts.**—HOUSES AND DRAINAGE.—Several works required in the erection and drainage, &c., of 70 houses (44 parlour and 26 non-parlour) on the Wellhouse estate housing scheme, Contract No. 3, for the U.D.C. The Surveyor, Council Offices, Wood-street, Barnet. Deposit £3 3s.

NOVEMBER 1.—**Castlewellan (Ireland).**—HALL.—Hall for the 420 Division A.O.H. Cunningham Bros., Main-street, Castlewellan.

NOVEMBER 1.—**Cowbridge.**—ADDITIONS.—Alterations and additions to the offices, for the R.D.C. E.Loveluck, A.R.I.B.A., 12, Dunraven-place, Bridgend.

NOVEMBER 1.—**Douglas, Isle of Man.**—SCHOOL.—Erection of a central elementary school, with certain extra rooms, and providing accommodation for 420 pupils at Laxey, Isle of Man, for the Isle of Man Education Authority. T. R. Lewin, Clerk, Education Offices, Strand-street, Douglas.

NOVEMBER 1.—**Hull.**—PAINTING.—Certain exterior painting at the offices, 10–14, Harley-street, for the Sculcoates B.G. W. Barrow, Clerk, 12, Harley-street, Hull.

NOVEMBER 1.—**London.**—ACCOMMODATION. — Erection of additional office accommodation at the Borough Hall, Royal-hill, Greenwich, for the B.C. Borough Engineer and Surveyor.

NOVEMBER 1.—**Low Bradfield.**—EXTENSION.—Of fuel storage at the Council schools. W. Wood, Divisional Clerk, Penistone.

NOVEMBER 1.—**Macclesfield.**—ADDITIONS.—Alterations and additions to the Council Offices, situate at King Edward-street, for the R.D.C. G. Clayton, architect, 19, King Edward-street. Deposit £2 2s.

NOVEMBER 1.—**Newcleton Toll.**—SCHOOL.—For mason and brick works, carpenter and joiner works, glazier work, plumber work, plaster and cement works, slater and harling works, asphalt work, painter work, heating installation, for the E.C. A. L. Fletcher, executive officer, County Education Offices, 9, Drumsheugh-gardens, Edinburgh.

NOVEMBER 1.—**Nottingham.**—PAINTING.—External cleaning and painting of the administrative block, wards, &c., at the Bagthorpe Infirmary, for the B.G. J. A. Battersby, clerk, Poor Law Offices, Shakespeare-street.

NOVEMBER 1.—**Nottingham.**—PAINTING.—Interior cleaning and painting of the Scattered Homes, and the Central Home, Hartley-road, for the B.G. J. A. Battersby, clerk, Poor Law Offices, Shakespeare-street.

NOVEMBER 1.—**Stockbridge.**—HOUSES. — Eight houses in Kingsomborne, for the R.D.C. Architect.

NOVEMBER 2.—**Dublin.**—PLASTERING. — Plastering work at the North Block of the Custom House, for the Commissioners of Public Works. J. J. Healy, Secretary, Oifig Oibreach Puibli (Office of Public Works), Baile Atha Cliath (Dublin). Deposit £1.

NOVEMBER 2.—**Leicester.**—TELEPHONE EXCHANGE. —Erection of, at Weston Park, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

NOVEMBER 2.—**Norwich.**—HOUSES.—150 houses on Drayton-road estate, for the T.C. 39 houses designed by S. G. Livock, F.R.I.B.A., 128, Unthank-road; 38 houses designed by A. F. Scott & Sons, FF.R.I.B.A., 24, Castle Meadow; 37 houses designed by G. J. Skipper, F.R.I.B.A., 7, London-street; 36 houses designed by S. J. Wearing, F.R.I.B.A., 3, Redwell-street. Respective Architects. Deposit £1.

NOVEMBER 2.—**Portrane.**—BUILDING.—Two small sanatoria for consumptives at Portrane Branch, Mental Hospital, Donabate, co. Dublin, for the Joint Committee of the Grangegorman Mental Hospital Committee. J. J. Doyle, Chief Clerk and Accountant, Grangegorman Mental Hospital, Dublin. Deposit £1 1s.

NOVEMBER 3.—**Brentwood and Margate.**—ALTERATIONS AND ADDITIONS.—(1) Alterations and additions at Highwood Hospital for Children, Brentwood, Essex; (2) verandah floor extensions and new entrance gates at Princess Mary's Hospital, Cliftonville, Margate, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C.4. Deposit £1 in respect of each work.

NOVEMBER 3.—**Clutton.**—HOUSES.—Construction of 14 additional houses at Clutton, four at High Littleton, and 18 at Paulton, for the R.D.C. W. T. Hawker, architect, Council Houses, Temple Cloud, near Bristol. Deposit £2 2s.

NOVEMBER 3.—**London.**—HEATING.—For (1) installation of automatic telephones and fire alarms, and (2) alterations to electric lighting installation at the North-Eastern Fever Hospital, St. Anne's-road, Tottenham, N. 15, and (3) installation of heating and hot-water supply apparatus in the gate blocks at the Park Fever Hospital, Hither-green, Lewisham, S.E., for the M.A.B. T. Cooper, engineer-in-chief, Victoria-embankment, E.C. 4. Deposit £1.

NOVEMBER 3. — **Stockport.** — TELEPHONE EXCHANGE.—Erection of, at Heaton Moor, Stockport, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

NOVEMBER 4.—**Galway.**—HOUSES.—Three houses at Taylor's Hill, for J. W. Greathed. H. G. L. O'Connor, architect, Waterside, Galway.

NOVEMBER 4.—**Llandilo.**—ALTERATIONS.—Alterations and improvements to the Provision Market, Llandilo, for the U.D.C. T. G. Price, A.R.I.B.A., surveyor, Market-street. Deposit £2 2s.

NOVEMBER 4.—**London.**—GARAGE.—Erection of a garage at St. Pancras House, King's-road, London, N.W.1, for the Guardians of the Parish of St. Pancras. B. Chapman, Clerk, Guardians' Offices, Town Hall, Pancras-road, N.W.1.

NOVEMBER 4. — **Middlesex.** — TELEPHONE EXCHANGE.—Erection of, at Edgware, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

NOVEMBER 4.—**Tullamore.**—RECONSTRUCTION.—Of proposed technical schools at Tullamore, for the Joint Committee of Technical Instruction. T. F. McNamara, M.R.I.A.I., architect, 192, Pearse-street, Dublin. Deposit £2 2s.

NOVEMBER 5.—**Ireland.**—BUILDING.—For the erection of stations at (1) Templetuohy, Co. Tipperary, and (2) Knock, Co. Mayo, for the Commissioners of Public Works. J. J. Healy, secretary, Office of Public Works, Baile Atha Cliath, Dublin. Deposit £1.

NOVEMBER 5.—**London.**—HEATING. —Accelerated low-pressure hot-water heating at Bermondsey Telephone Exchange, for H.M.O.W. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s.

NOVEMBER 5.—**Napsbury.**—ADDITIONS.—Nurses' home, additions and alterations to Isolation Hospital, new bath house, &c., verandahs to existing ward blocks, five blocks of cottages, and sundry works in connection at the Napsbury Mental Hospital, for the Middlesex C.C. County Architect, 87–91, Tufton-street, Westminster, S.W. 1. Deposit £3 3s.

NOVEMBER 6.—**Birkenhead.**—FLATS.—Erection of 42 on land fronting Agnes-road, Birkenhead, for the Birkenhead Corporation. Charles Brownridge, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Birkenhead. Deposit £2 2s.

NOVEMBER 6.—**Gildersome.**—HOUSES.—Eight houses, non-parlour type, on the Vicarage site, for the U.D.C. W. Wilby, surveyor.

NOVEMBER 6.—**Reigate.**—PARLOUR HOUSES.—Erection of 17 pairs of parlour houses in Ringwood-avenue and Gatton Park-road, Redhill, for the Reigate T.C. Fred. T. Clayton, Borough Surveyor, Municipal Buildings, Reigate. Deposit £3 3s.

NOVEMBER 6.—**Salford.**—WIRING.—Wiring, fittings and other electrical details for the new mortuary and converted laundry buildings at the Union Infirmary, Hope, Pendleton, for the B.G. E. H. Inchley, Clerk to the Guardians, Poor Law Offices, Eccles New-road. Deposit £2 2s.

NOVEMBER 6.—**Teddington.**—ADDITIONS.—Alterations and additions to the existing fire station, including foundations, drainage and other work, for the U.D.C. Marshall Hainsworth, surveyor, Elmfield House.

NOVEMBER 8.—**Abergele and Pensarn.**—HOUSES.—Twenty-two houses on the Abergele housing estate, including road construction work and works of sewerage in connection with the scheme, for the U.D.C. H. A. Jones, engineer and surveyor, Town Hall, Abergele. Deposit £1 1s.

NOVEMBER 8.—**Neath.**—HOUSES.—Sixteen houses, semi-detached blocks of two, in brickwork, at Resolven, near Neath, for the R.D.C. D. M. Davies, L.R.I.B.A., engineer and architect, Orchard-street. Deposit £2 2s.

NOVEMBER 8.—**Nottingham.** — CONVENIENCE. — Ladies' convenience on Nottingham Forest, for the T.C. City Engineer.

NOVEMBER 9.—**East Sussex.**—SCHOOL.—Erection of new secondary school for girls (150) and boys (150) at East Grinstead, in the County of East Sussex, for the County Council. County Surveyor and Architect's Department, 10, North-street, Lewes. Deposit £3 3s.

NOVEMBER 9.—**Fairburn.**—ADDITIONS.—Alterations and additions to Fairburn Council school, for the West Riding E.C. The Education Department, County Hall, Wakefield.

NOVEMBER 9.—**Ireland.**—RESTORATION.—For (1) Cobh ex-R.I.C. barracks, Co. Cork, and (2) Eyrecourt ex-R.I.C. barracks, Co. Galway, for the Commissioners of Public Works. J. J. Healy, secretary, Baile Atha Cliath, Dublin. Deposit £1.

NOVEMBER 9.—**Ongar.**—COTTAGES.—In the following parishes, viz.:—Norton Manderville, two pairs; Blackmore, two pairs; Shelley, three pairs, for the R.D.C. P. Pearce, Housing Surveyor. Deposit £1 1s.

NOVEMBER 9.—**St. Austell.**—HOUSES.—Fifty houses on the Polkyth housing site, for the U.D.C. E. D. Groves, engineer and surveyor. Deposit £2 2s.

NOVEMBER 9.—**South Kirkby.**—SCHOOL.—New school for 600 children at South Kirkby, for the West Riding E.C. The Education Department, County Hall, Wakefield.

✱NOVEMBER 10.—**Birmingham.**—DEMOLITION, &c. —Demolition and removal of buildings and reinstatement of ground (as grazing land) at Princess Mary's Convalescent Centre, Rendal, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

✱NOVEMBER 10.—**Essex.**—ALTERATION AND ADDITIONS.—To the Great Banstead elementary school, for the Essex Education Committee. Jno. Stuart, F.R.I.B.A., County Architect, Springfield Old Court, Chelmsford. Deposit £1 1s.

NOVEMBER 10. — **Grantham.** — EMPLOYMENT EXCHANGE.—Erection of at Grantham, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

NOVEMBER 10. — **Salford.** — OFFICES. — Electricity showrooms and offices, Chapel-street, for the T.C. C. Swain, architect, 12, Exchange-street, Manchester. Deposit £2 2s.

✱NOVEMBER 11.—**Kent.**—COUNTY SCHOOL.—Erection of the new County School for Girls, Ashford, in the county of Kent, for the Kent Education Committee. W. H. Robinson, F.R.I.B.A., Room 69, Sessions House, Maidstone. Deposit £2 2s., in the form of a cheque payable to the Kent Education Committee, and crossed "National Provincial Bank, Ltd."

NOVEMBER 11. — **Swansea.** — EMPLOYMENT EXCHANGE.—Erection of The Docks Employment Exchange, Swansea, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

✱NOVEMBER 11.—**Thame, Oxon.**—HOUSES.—Erection of seven pairs of non-parlour houses, for the R.D.C. H. B. Barnsley, Council's Architect, Knightsbridge Farm, Shirburn, Watlington, Oxon.

NOVEMBER 12.—**Belfast.**—BASEMENT STORY.—Construction of the basement story of the new Parliament Building, Stormont Castle Estate, Belfast, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

✱NOVEMBER 12.—**Halifax.**—EMPLOYMENT EXCHANGE.—Erection of an Employment Exchange at Halifax, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners.)

✱NOVEMBER 12.—**London.**—EXTERNAL PAINTING WORK.—At Cornwall House, Stamford-street, S.E., for the Commissioners of H.M. Office of Works' Contracts Branch, King Charles-street, London, S.W.1' Deposit £1 1s. (cheques payable to the Commissioners).

NOVEMBER 13.—**Bristol.**—BUILDING.—A laundry building at Eastville Institution, for the B.G. T. S. Lamb, clerk. St. Peter's Hospital, Bristol. Deposit £3.

✱NOVEMBER 13.—**St. Helens.**—HOUSES.—Erection of 62 non-parlour, three-bedroom type houses, as follows: Site "C," Borough-road, 40 houses; site No. 6, Robins'-lane, 22 houses, for the Corporation. Arthur W. Bradley, M.Inst.C.E., Borough and Water Engineer, Town Hall, St. Helens. Deposit £2.

NOVEMBER 13.—**Wednesbury.**—DEMOLITION.—Of the existing property and the erection of four houses at Little Hill, for the T.C. A. Booth, Borough Engineer and Surveyor. Deposit £2 2s.

✱NOVEMBER 16.—**Southport.**—EMPLOYMENT EXCHANGE.—Erection of, at Southport, for the Commissioners of H.M. Office of Works. Contracts Branch, King Charles-street, London, S.W. 1. Deposit £1 1s. (cheques payable to the Commissioners).

NOVEMBER 17.—**Liverpool.**—DWELLINGS.—Eighteen tenement dwellings on the Pitt-street area, for the T.C. Acting-Director of Housing, Municipal Buildings, Dale-street. Deposit £1 1s.

NOVEMBER 17.—**Newcastle-upon-Tyne.**—SCHOOL.—Large elementary school (1,550 scholars) on the Pendower estate, for the E.C. Thos. Walling, Director of Education, Northumberland-road. Deposit £5.

✱NOVEMBER 17.—**Stockton-on-Tees.**—EMPLOYMENT EXCHANGE.—Erection of, at Stockton-on-Tees, for the Commissioners of H.M. Office of Works. Contracts Branch, King Charles-street, London, S.W. 1. Deposit £1 1s. (cheques payable to the Commissioners).

✱NOVEMBER 18.—**Hampton, Middlesex.**—TELEPHONE EXCHANGE.—Erection of Molesey Telephone Exchange, Hampton, for the Commissioners of H.M. Office of Works. Contracts Branch, King Charles-street, London, S.W. 1. Deposit £1 1s. (cheques payable to the Commissioners).

NOVEMBER 19.—**Nelson.**—CHIMNEY.—Pulling down of a disused chimney at the sewage works, for the Corporation. Borough Surveyor.

✱NOVEMBER 19.—**Southend-on-Sea.**—MAIN TELEPHONE EXCHANGE.—Erection of, at Southend-on-Sea, for the Commissioners of H.M. Office of Works. Contracts Branch, King Charles-street, London, S.W. 1. Deposit £1 1s. (cheques payable to the Commissioners).

NOVEMBER 20.—**Pontefract.**—HOUSES.—106 houses on the Baghill housing site, for the T.C. W. H. Newton, Borough Engineer. Deposit £5.

✱NOVEMBER 22.—**Southend-on-Sea.**—EXTENSIONS. —Erection and completion of extensions to the refuse destructor, and works incidental thereto, at the Sewage Disposal works, Prittlewell, for the Corporation. Robert H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2.

NOVEMBER 24.—**Hackney.**—ELECTRICITY SUBSTATION.—Erection of, at Stamford Hill, Hackney, for Council of the Metropolitan Borough of Hackney. Borough Electrical Engineer, 18–24, Lower Clapton-road, E.5. Deposit £2 2s.

✱NOVEMBER 25.—**Manchester.**—HOUSES.—Erection of four houses and upwards on the Kingsway and Gorton estates (the number to which the tender applies to be set out on the form of tender), for the Housing Committee of the City of Manchester. Housing Director, Town Hall. Deposit £2 2s. to the City Treasurer.

DECEMBER 7.—**Bri Chualann.**—CONVENIENCES.—Public lavatories, &c., on site between Municipal Baths and Strand-road, for the U.D.C. E. M. Murphy, surveyor. Deposit £1 1s.

✱NO DATE.—**Chelsea.**—RECEIVING WARDS, OPERATING THEATRE.—Erection of new receiving wards, operating theatre, and other works at St. Luke's Hospital, Cable-street, S.W.3, for the Chelsea B.G. Charles W. Shepherd, Clerk to the Guardians, 250, King's-road, Chelsea.

NO DATE.—**Cookstown.**—HALL.—Altering, enlarging, and adapting existing premises in Fair Hill, Cookstown, Co. Tyrone, for the purpose of a masonic hall, for the Trustees. R. Ferguson & S. M'Ilveen, architects and civil engineers, 36, Scottish Provident Buildings, Belfast.

NO DATE.—**Douglas.**—DEMOLITION.—Pulling down of the buildings at the back of The Cabin Cafe, situated Strand-street, Douglas, for the erection of the Palais de Danse. H. J. Shepherd, architect, Town Hall Chambers, Sheffield.

NO DATE.—**Llanllyfni.**—HALL.—New Memorial Hall at Llanllyfni, for the Llanllyfni Memorial Hall Committee. R. Pierce, F.R.I.B.A., architect and surveyor, 39, New-street, Caernarvon.

NO DATE.—**Mexborough.**—PREMISES.—New premises for the Mexborough Concertina Band Club, to be erected in Hallgate. W. Broadbent, architect, 12, East Parade, Leeds.

MATERIALS, etc.

NOVEMBER 1.—**Litherland.**—GRANITE.—6 in. × 12 in. granite kerbing, for the U.D.C. Geo. Ponsford, engineer and surveyor.

NOVEMBER 2.—**London.**—MATERIALS.—Bricks, cement, lime, plaster, drain pipes, paving and coping, stone setts and slates, fire-bricks and fireclay, fencing gates and gate-posts, sanitary ware and fittings and varnishes, &c., for the G.W.R. F. R. E. Davis, Secretary, Paddington Station, W.2.

NOVEMBER 6.—**Burnham-on-Sea.**—MATERIALS.—Broken roadstone and chippings, tarmacadam and topping, for the U.D.C. Surveyor.

NOVEMBER 8.—**Dublin.**—MATERIALS.—Building materials and timber, castings, colours, varnishes, &c., electrical fittings, for the United Tramways Co. G. Marshall Harriss, General Manager, 59, Upper Sackville-street.

NOVEMBER 15.—**Cairo.**—SEWERS.—Supply, construction and delivery in perfect working order and condition of main and branch sewers, for the Commercial Secretary of Cairo. Department of Overseas Trade (Room 50), (Ref. A.X.3719).

NO DATE.—**Dundee.**—SETTS.—1,000 tons of whinstone setts, for the T.C. G. Baxter, City Engineer, 91, Commercial-street.

ENGINEERING, IRON AND STEEL.

NOVEMBER 1.—**Egypt.**—STEELWORK.—For (*a*) the supply and erection of steel and ironwork for lock regulator, swing bridge and subsidiary works; (*b*) the construction of masonry of a lock, regulator and subsidiary works, at Kafr Bulin, for the Ministry of Public Works. Chief Inspecting Engineer, Egyptian Government, 41, Tothill-street, Westminster, S.W.1. Deposit £2 14s. 6d.

NOVEMBER 1.—**London.**—BRIDGES.—Girder bridges (160 ft. and 150 ft. through spans), for the Bengal-Nagpur Railway Co. R. C. Volkers, secretary, 312, Gresham House, Old Broad-street, E.C.2.

NOVEMBER 1.—**Macclesfield.**—SEWERAGE.—Construction of stoneware and steel tube sewers, manholes, flushing chambers, strengthening of bridge over the River Dane, steel work construction and special fittings, for the R.D.C. J. H. Walters, L.R.I.B.A., engineer, Moody Chambers, Congleton. Deposit £2 2s.

NOVEMBER 2.—**Worksop.**—STEELWORK.—Supply and erection of steelwork for garage extension in Eastgate, for the Co-operative Society, Ltd. J. Haslam, architect, Bridge-place.

NOVEMBER 5.—**Builth.**—RE-ERECTION.—Of the following bridges, for the R.D.C.:—(1) Glandulas Cartbridge, in the parish of Llandulas; (2) Cliant Cartbridge, in the parish of Llanddewi Abergwessin; (3) Nantyrwch Cartbridge, in the parish of Llanddewi Abergwessin; (4) Tavernypridd Footbridge, in the parish of Penbuallt. Engineer, Strand Hall Chambers, Builth Wells.

NOVEMBER 8.—**Clitheroe.**—REPAIRS.—Repairing and partial reconstruction of Eadsford bridge over the River Ribble, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

NOVEMBER 8.—**Rhondda.**—STEELWORK.—220 tons of bridge steelwork, and of 135 tons in an alternative design, for the U.D.C. E. Taylor, engineer and surveyor.

NOVEMBER 8.—**Salford.**—STEELWORK.—For the washhouses and slipper baths in Hodge-lane, for the T.C. C. Swain, architect, 12, Exchange-street, Manchester.

NOVEMBER 8.—**Wirral.**—TANKS.—Settling tanks on the main line sewer to the north of, and adjoining the Wirral Railway, for the R.D.C. W. Webb Shennan, surveyor, 15, Hamilton-square, Birkenhead. Deposit £3 3s.

NOVEMBER 17.—**Sutton (Surrey).**—DRAINAGE.—Providing and laying sewers from 6 in. to 12 in. in diameter for approximately 6,900 yards, together with manholes, ejectors, and air compressing plant, air mains, rising mains, and construction of detritus chambers, settling tanks, percolating filters, humus tanks and sludge beds, for the U.D.C. Wm. Hedley Grieves, surveyor. Deposit £5 5s.

DECEMBER 1.—**Denmark.**—BRIDGE.—Construction of the superstructure, substructure, as well as approach spans, with shore piers, for a double-track railway bridge across Lillebelt, for the Danish State Railways. Danish Legation, London. Deposit, Danish Kroner 500.

ROAD, SEWERAGE, AND WATER WORKS.

NOVEMBER 1.—**Chelmsford.**—SEWER.—Construction of about 420 yards of 9 in. sewer, with necessary manholes, &c., in the Fryerning-lane, Ingatestone, for the R.D.C. J. Dewhurst, Engineer, Waterloo-lane.

NOVEMBER 1.—**Forest Hill.**—WATER SUPPLY.—Providing and laying 2 in. cast iron water supply at Horniman Gardens, Forest Hill, for the L.C.C. Chief Officer, Parks Department, The County Hall, S.E.1 (Room 393E.).

NOVEMBER 1.—**Slough.**—DRAINAGE.—Construction of about 504 lineal yards of 9 in. and 12 in. surface water drain in London-road, for the U.D.C. A. Bromly, Town Surveyor.

NOVEMBER 1.—**Warsop.**—SEWERS.—Provision and laying of 3,350 yards of foul and surface water sewers, with manholes and fittings thereto, for the U.D.C. Vallance & Westwick, engineers, White Hart Chambers, Mansfield.

NOVEMBER 1.—**Whitby.**—SEWERS.—Construction of about 725 yards lineal of 24 in. diameter reinforced concrete and iron pipe sea outfall sewer and pumping station on the foreshore, and about 2,200 yards lineal of 12 in. to 6 in. iron and stoneware pipe collecting sewers in streets, &c., together with manholes and all appurtenant works, for the U.D.C. W. H. Radford & Son, engineers, Albion Chambers, King-street, Nottingham. Deposit £5 5s.

NOVEMBER 1.—**Willenhall.**—RECONSTRUCTION.—Of Wolverhampton to Walsall main road, as follows:—(1) 6,700 super yards blue brick on edge paving on concrete foundation, and (2) 15,700 super yards of bituminous carpet on concrete foundation, for the U.D.C. G. A. Waite, Engineer and Surveyor. Deposit £3 3s. each.

NOVEMBER 1.—**Workington.**—ROADS.—Carrying out of the several works required in the construction of such portions of the roads and sewers in connection with the Salterbeck housing scheme, as are included in 2 section, which includes the laying of about 204 lin. yards of 15 in., and 530 yards of 9 in. diameter sewers, manholes and other works, also about 775 lin. yards of roads and footways, for the T.C. H. B. Williams, Borough Engineer and Surveyor. Deposit £3 3s.

NOVEMBER 2.—**London.**—PAVING.—With ¾ in. mastic asphalt a portion of the footway of Eden-grove, area about 450 super. yards, for the Islington B.C. Borough Engineer, Municipal Buildings, Upper-street, Islington, N.1.

NOVEMBER 3.—**Havant.**—MAKING-UP.—Of Chichester-avenue, Hayling South, for the R.D.C. Surveyor, West-street. Deposit £2 2s.

NOVEMBER 3.—**Oxford.**—SEWERS.—Construction of certain hand-pitched stone road foundations, with the necessary earthworks, and construction of the stoneware pipe foul and surface water sewers, together with manholes, gullies, and other incidental works, on the Gipsy-lane housing site, for the T.C. J. F. Richardson, City Engineer. Deposit £2 2s.

NOVEMBER 4.—**Southend-on-Sea.**—MAKING-UP.—Making-up and storm-water drainage, Victoria-road, section 2, and Ambleside-drive, section 2, and incidental works in connection thereto, for the C.B. H. R. Dyer, Borough Engineer and Surveyor. Deposit £2 each.

NOVEMBER 5.—**Kent.**—ROAD.—Construction work in connection with the Bexley Heath by-pass arterial road, for the M.T. Chief Engineer, Roads Department, Ministry of Transport, 7, Whitehall-gardens, S.W.1. Deposit £25.

NOVEMBER 5.—**Leeds.**—DRAINAGE.—Drainage work in connection with six houses in Hill End-road, Armley, for the B.G. J. H. Ford, clerk, Poor Law Offices, 11, South Parade.

NOVEMBER 5.—**Romford.**—SEWER.—Providing and laying about 160 yards of 12 in. diameter steel pipe sewer in trench under railway; also 100 yards of 12 in. diameter and 400 yards of 9 in. diameter stoneware pipe sewer, with manholes, &c., from Factory-road to Brentwood-road, for the U.D.C. F. G. Beaumont, engineer and surveyor, 8, South-street. Deposit £2 2s.

NOVEMBER 6.—**Teddington.**—SEWER.—Removal of the existing sewer in Church-road and Somerset-road, Teddington, and the laying of 318 lin. yards of concrete tubes of 18 in. and 24 in. diameter, 25 lin. yards of cast-iron pipes 24 in. diameter, and other works in connection therewith, for the U.D.C. Marshall Hainsworth, surveyor. Deposit £2 2s.

NOVEMBER 8.—**Coalville.**—RECONSTRUCTION.—Reinforced concrete road construction for laying and maintaining about 7,000 super yards of carriageway in Whitwick, for the U.D.C. L. L. Baldwin, surveyor, Council Chamber.

NOVEMBER 8.—**Hendon.**—IMPROVEMENTS.—Making-up of the following streets, viz.: Hampstead-way, Lodge-road, Cranbourne-gardens (part), Oakfield-road, Prospect-road, Prospect-place, Murray-road and Woodland-way, for the U.D.C. Mr. A. O. Knight, engineer and surveyor. Deposit £10.

NOVEMBER 8.—**Sheffield.**—ADDITIONS.—Additional conveniences at Woodhouse secondary school, for the West Riding E.C. Education Department, County Hall, Wakefield.

NOVEMBER 8.—**Watford.**—WIDENING.—Of Whippendell-road for a distance of 60 yards at its juncture with Rickmansworth-road, including the extension by 10 yards of a small culvert in reinforced concrete, for the T.C. W. W. Newman, Borough Engineer. Deposit £2 2s.

NOVEMBER 8.—**Wirral.**—SEWER.—Construction of half a mile of 24 in. main sewer and appurtenances, carrying same through embankment, maximum depth 30 ft., and the extension on the foreshore seawards for a further two-fifths of a mile, for the R.D.C. W. Webb Shennan, surveyor, 15, Hamilton-square, Birkenhead. Deposit £3 3s.

NOVEMBER 9.—**Cheadle and Gatley.**—SEWERAGE.—Works of sewerage to be carried out in the High Grove-road, for the U.D.C. G. P. Stanley, acting engineer and surveyor.

NOVEMBER 9.—**Cheadle and Gatley.**—PIPES.—Supply and fixing of 12 in. iron pipes, bends, sluice valves, &c., to syphon under Railway at Heald Green Station, Cheshire, for the U.D.C. G. P. Stanley, acting engineer and surveyor.

NOVEMBER 10.—**London.**—ROADS.—Construction and surfacing work in connection with sections of the North Circular Arterial Road, Walthamstow and Woodford, Essex, for the M.T. Chief Engineer, Roads Department, Ministry of Transport, 7, Whitehall-gardens, S.W.1. Deposit £25.

NOVEMBER 10.—**Rochdale.**—PAVING.—Paving and completion of Wrigley-square, for the C.B. Borough Surveyor.

NOVEMBER 12.—**Essex.**—KERBING.—Surfacing, kerbing work, &c., in connection with a section of the Woodford-Ilford arterial road, for the M.T. Chief Engineer, Roads Department, Ministry of Transport, 7, Whitehall-gardens, S.W.1. Deposit £25.

NOVEMBER 15.—**Whitstable.**—MAIN.—Excavating trenches, &c., and supplying and laying about 5,900 yards of 12 in. internal diameter water main of cast-iron, and, alternately, steel tubes, together with other contingent works, for the U.D.C. J. Dunn, Surveyor and Water Engineer. Deposit £2 2s.

✱NOVEMBER 16.—**Berks.**—REDRAINAGE WORK.—At Broadmoor Asylum, Berks, for the Commissioners of H.M. Office of Works. Contracts Branch, King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Commissioners).

NOVEMBER 30.—**Bucks.**—ROADS.—Road reconstruction works on a section of the London-Oxford road, approximately 3¼ miles in length; also a short by-pass at Gerrards Cross Common Cross-roads, for the C.C. E. Winfield, County Surveyor, Lloyds Bank Chambers, Aylesbury. Deposit £10.

Auction Sales, Tenders, etc.

NOVEMBER 2.—**Kingston-on-Thames.**—Perry & Phillips will sell, by order of Sir Charles Davidson, on the premises, Fairview, Coombe Hill, Kingston-on-Thames, the whole of the interior and exterior fixtures and fittings, oak and pine flooring, oak and pine doors, boiler and ranges, two small greenhouses, the fabric of the mansion, brick and stone work. Auctioneers, 59, High-street, Bridgnorth.

NOVEMBER 3.—**Bucks.**—F. E. Howard, F.A.I., of F. E. Howard & Sons, will sell, at the Town Hall, Chesham, freehold country residence, known as Krendi, Ley Hill, Chesham, chauffeur's cottage, two motor garages, stables and other outbuildings. Auctioneers, Chesham and Amersham.

✱NOVEMBER 3.—**Croydon.**—Blake, Son & Williams will sell, on the site, Haling Park, Croydon, to clear the site for future purposes, building materials forming the mansion. Auctioneers, 43-45, High-street, Croydon.

NOVEMBER 5.—**London.**—Herbert Muskett & Co. will sell, by order of the Chancery Division of the High Court and Trustees, valuable building land, 240 ft. Oakleigh Park, 230 ft. St. Albans, 232 ft. Southgate, 10½ acres and 56 plots London Colney. Auctioneers, 293, High-road, Wood Green, N.22.

NOVEMBER 10.—**London.**—Henry Butcher, Hall & Co. will sell on the premises, 143, Shoreditch High-street, E.1, the new and clean stock recently purchased by Cope & Timmins from Messrs. Everest & Co., builders' and plumbers' brasswork, gas tubes, fittings, and brass joints, brass, oxydised and other electric fittings, and accessories, bedsteads, and other miscellaneous goods. Auctioneers, 63 and 64, Chancery-lane, W.C.2.

✱NOVEMBER 11.—**Bolton.**—Lomax, Sons & Mills will sell, by order of the Bolton Corporation Waterworks Committee, at Belmont Reservoir, Belmont, near Bolton, contractor's plant, rolling stock, &c. Auctioneers, Central Chambers, Bolton; and 2, Booth-street, Manchester.

NOVEMBER 14.—**Ealing.**—Hetherington & Secrett will sell (unless previously sold), at the Town Hall, Uxbridge-road, Ealing, freehold property, yard, workshop and brick-built stabling, together with an excellent villa residence, situate at and known as No. 14, Alexandra-road, West Ealing, W. Auctioneers, opposite Ealing Broadway Stations, and at Gerrards Cross, Bucks.

NOVEMBER 16.—**London.**—Henry Butcher, Hall & Co. will sell, by order of the Joint Liquidators, Mr. F. S. Jackson, F.C.A., and Mr. E. J. Webber, on the premises, High-street, Wimbledon, S.W.19, the plant, machinery and stock of Messrs. T. Holloway, Ltd., builders, decorators, and electricians. Auctioneers, 63 and 64, Chancery-lane, W.C.2.

Competitions.

(*See Competition News page* 680.)

Public Appointments.

✱NOVEMBER 1.—**Sheffield.**—Chief Architectural Assistant in the Housing Section of the City Architect's Department required by the City Council. City Architect, City Architect's Department, Sheffield.

NOVEMBER 1.—**Warrington.**—Two Assistants required by the Corporation in the Office of the Borough Engineer and Surveyor; (1) Assistant for Engineering and Surveying Department; (2) Assistant in the Building Surveyor's Department. Andrew M. Ker, B.Sc., Assoc.M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Warrington (on receipt of stamped addressed foolscap envelope).

✱NOVEMBER 10.—**Dublin.**—Two temporary Architects' Assistants required in the Office of Public Works by the Civil Service Commissioners. The Secretary, Civil Service Commission, 33, St. Stephen's Green, Dublin, on the prescribed forms.

✱NOVEMBER 20.—**Portsmouth.**—One permanent Engineering Assistant to the City Engineer required by the Portsmouth City Council. F. J. Sparks, Town Clerk, Guildhall, Portsmouth.

✱NO DATE.—**Kenya.**—Building Foreman required for the Public Works Department, for 20 to 30 months' service. Apply at once, Crown Agents for the Colonies, 4, Millbank, Westminster, London, S.W.1, quoting M/14794.

✱NO DATE.—**Trinidad.**—Concrete Foreman required by the Government of Trinidad for the Public Works Department for two years in the first instance. Apply at once, Crown Agents for the Colonies, 4, Millbank, London, S.W.1, quoting M/14929.

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B.E. for Board of Education; M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board.

ACCRINGTON.—The T.C. passed plans: J. Cronkshaw, house in Manchester-road, opposite Haworth Park; J. E. Haworth, house in Manchester-road, opposite Haworth Park; J. W. Hodgson, two houses in Poulton-avenue, off Whalley-road; M. Chambers & Sons, six bungalows, in Marlborough-road.

ADWICK.—The proposal of the U.D.C. to purchase 26 acres of land between Adwick and Highfields, and to erect 276 houses, has been sanctioned by the M.H.

ARMAGH.—The Ministry of Finance are prepared to consider favourably the application of the City Council for a loan of £4,000 for the 14 houses in Navan-street.

ARMTHORPE.—The West Riding E.C. recommend that the scheme for the completion of the new school, including the provision of special rooms for middle school classes, be approved, at a total estimated cost of £31,125.

BARNSLEY.—The Borough Engineer has prepared plans for the proposed shelter to be erected in Locke Park.—The C.B. passed plans: H. Hibbert, bungalow, Belgrave-road; D. R. Snowden, four houses, Wakefield-road; Hey & Pashley, two houses, White Hill-avenue; Wm. Dunk, house, Locke-avenue; Wm. Dunk, two houses, Dodworth-road; Wm. Storrs, six houses, Woodstock-road.

BECONTREE.—The L.C.C. recommend that, subject to the consent of the M.H., the freehold of the two sites on the Dagenham section of Becontree, one near Halbutt-street and the other near Wonts Brook, be sold to the Essex C.C. for the erection of elementary schools.

BELFAST.—The Corporation propose to borrow £150,000 for the general purposes of the gas undertaking.

BENTLEY-WITH-ARKSEY.—The West Riding C.C. recommend the spending of £1,570 in reconstructing the Doncaster and Tadcaster main road and Lady Pitt's Bridge and flood arches.

BEXHILL.—The T.C. passed plans: Pair of semi-detached houses, Amherst-road, for W. Shannon; bungalow, Barnhorn-lane, by J. H. Lye, for W. Dawson; four detached houses, Cooden-drive, by J. E. Maynard, for E. P. Waghorn; two bungalows, Cranston-rise, by J. H. Lye, for J. Barber; house, Orchard-road, by J. E. Maynard, for Mrs. B. E. Evans; pair of semi-detached houses, Gunter's-lane, by Sceats & Bates, for Mrs. Matthews and Mr. B. Cross; bungalow, Collingtonlane, by E. H. Gandy, for J. Walmsley; bungalow, Cranston-avenue, by J. H. Lye, for J. Barber.

BIRKENHEAD.—Birkenhead Licensing Justices have granted a cinema licence to Mr. Andrew Boyd for a £40,000 building to be erected on land at the corner of Borough-road and Kingsland-road.

BIRMINGHAM.—The Estates Committee are to prepare a draft scheme for the improvement of the New Summer street and Lower Tower-street area.—Subject to the confirmation of the M.H., the Estates Committee recommend the following: Leasing to Drs. Cook and Daly of a site for a doctor's residence and surgery, on the Pype Hayes estate, Erdington; leasing to the Ward End ex-Service Men's Association of a site for a club-house on the Wakeman Newport estate; leasing to Morris and Jocambs & Sons, Ltd., of a site with dwelling accommodation, fronting Coventry-road, Yardley; leasing to Dr. A. Beauchamp a site for a doctor's residence and surgery, at the junction of Wash-lane and Yardley-road, Yardley; and the transfer of a piece of land fronting Yardley Wood-road to the Bank Committee as a site for a Municipal bank.—Subject to the sanction of the B.E. and the M.H., the E.C. recommend the acceptance of a tender for the erection of a public elementary school at Pype Hayes, Erdington.—The T.C. recommend the purchase of the property at the junction of Belchers-lane and Pelham-road, Alum Rock, at the sum of £2,150, for the purposes of a Municipal bank.—The Council also propose the purchase of 176, Alcester-road for the purposes of a Municipal bank.—The Watch Committee are to take such action as may be necessary to secure the preparation of plans, &c., and to obtain tenders for the erection of a new central fire station and a new fire sub-station in the King's Norton district.—The following are loans sanctioned: Public wash-house, Hockley, £4,900; elementary schools, Bierton-road, Yardley, erection, £34,425; Starbank-road, erection, £15,520; Council House, provision of retiring rooms, &c., £2,870.

BRADFORD.—The T.C. passed plans for the following houses: I. F. Akeroyd, Leaventhorpe-road, eight; Groves & Greenwood, Browyroyd Hill-road, 10; J. & H. Dalby, Beacon-lane, 12; Thos. E. Bairstow, Moore-avenue, two; Ralph Dickenson, Bradford-road, Idle, two; A. W. G. Prosser, for F. Ashwell, pair of houses, Beverley-crescent; E. H. C. Inskip, for A. L. Abbott, four cottages, St. Helena-road.

BRIGHTON.—Four parishes in Brighton are uniting to purchase a site for a central school.

BROTHERTON.—The West Riding E.C. recommend that, for the purpose of the future enlargement of the Council School, a plot of land adjoining the school be purchased.

BUTTERSHAW.—Funds are being raised for erecting a new church institute at St. Paul's Church.

CARSHALTON.—Plans were submitted for 132 houses, including 32 in Orchard-way, 40 in Erskine-road, and 40 in Byron-gardens, for the Nibloc Syndicate.—The Surrey E.C. have offered the Council £1,725 for six acres of land as a school site in the rear of West-street and Colston-avenue.

CASTLEFORD.—The West Riding E.C. recommend that additional accommodation be provided at the secondary school, at a cost of £250.

CHATHAM.—The T.C. has approved plans: House, Hook-road, Walderslade, for Mr. Gardiner; pair of semi-detached cottages at Pattens-lane, for Simmons & Rashbrook; two houses, Watling-avenue, for H. Hinkley; three shops, Palmerston-road, for W. & S. Scott; two semi-detached houses, Pattens-lane, for Mrs. A. E. Ewart; bungalow, Beacon-road, for Mrs. L. Woollett.

CHEADLE.—The R.D.C. passed plans: House at Winkhill for W. Brindley; four houses at Brookhouses, Cheadle, for the Berry Hill Colliery Co.; bungalow at Brookhouse-lane, Bucknall, for J. Leatherbank; house at Cheddleton, for C. Clowes; three houses at Cotton, near Oakamoor, for the Bishop of Birmingham; house at Greenhill, Cheadle, for A. G. Sarson; bungalow in Caverswall Wood, for H. Lovatt; lock-up shop at Kingsley Holt, for Mr. Millward; bungalow at Bucknall, for A. Perry; bungalow at Denford, near Cheddleton, for J. Horne; bungalow at Blythe Marsh, for W. Walker.

CHERITON.—The Catholics are proposing to build a church. A site has been secured.

CHRISTCHURCH (HANTS).—The T.C. has agreed to make application to the M.H. for sanction to borrow £600 in connection with the completion of the Barrack-road housing scheme.

COBHAM.—A site has been purchased at Englefield Green for the erection of a Catholic church.

COVENTRY.—The Housing Committee recommend that approval be given to the erection of an additional 100 houses at the Radford housing estate, at an estimated cost of £42,000.—The Waterworks and Fire Brigade Committee also recommend that powers be sought in connection with the construction of a new reservoir.

CRANBROOK.—The R.D.C. has approved plans for an isolation block for Benenden School and for a new bungalow for Mr. Slingsby.

CROYDON.—The C.B. passed plans: W. Binge, house and garage, Upfield-road; R. W. Trent, bungalow, The Glade; L. O. Linfoot, two houses, Woodmansterne-road; The Borough Electrical Engineer, sub-station extension, at Purley-way and Stafford-road; Morgan, Baines & Clark, two houses, Blenheim-Park-road; J. J. Moore & Son, house and garage, Croham-road, next "Koumani"; F. J. Barrett, house, Norbury-avenue; F. W. Rees & Partners, two houses, Addiscombe-road (corners of Upfield-road); F. W. Gardiner, two houses, Norbury Hill; W. Miller, five lock-up shops, Waddon-road, corner of Benson-road; Thomas & Son, six houses, Norbury Hill; Morgan, Baines & Clark, 11 houses, Mount Park-avenue; Polden & Authers, 29 houses, Mitcham-road; Corporation of Croydon, cloak room and lavatories, Central Baths, Scarbrook-road; J. Bennett, 12 houses and garages, Frisby-avenue, Shirley; Paish, Tyler & Crump, two houses, 9 and 11, Birch Tree-way; house and garage, Stella Maris, Shirley-road; house, Addiscombe-road; two houses and garages, 1 and 12, Ashurst-walk, six houses, 329–339, Addiscombe-road, house, 341, Shirley-road; C. Wootton, 27 houses, Parry-road; H. E. Davey, two houses as flats, Canham-road; W. T. Champion & Son, two houses and garages, Howard-road; T. Campbell Pope, house and garage, Shirley-road, next "Holmbury Cottage"; H. P. Hawkes, house, Kingsdown-avenue and Woodmansterne-road; F. G. Shipway, four houses, Queen's-road; G. Dimier, bungalow, Beulah Hill, at Biggin Hill; C. E. Hanscombe, house, Duppas-road and Duppas Hill-road; J. Midmer, 10 houses, Norbury Court-road; J. R. Webster, house, Denning-avenue; L. A. Aston, 12 houses, Green-lane; E. B. Hammond, house, 58, Parchmore-road; G. C. New & Sons, 14 garages, Woodside Green; W. Cannard, house, 90, Alderton-road; L. A. Culliford, 11 houses, Wharncliffe-road and Falkland Park-avenue; C. S. Banks, house, Mapledale-avenue; H. D. Ebbutt & Son, house into four flats, 14, Morland-road; E. J. Curr, bungalow, Woodmere-avenue; F. W. Rees & Partners, two bungalows, Orchard-avenue; Mrs. Saunders, house over garage, 10, Oliver-grove; W. Forsey, eight garages and office, Norbury-avenue; F. Sutton Smith, schools, Baptist Church, Crunden-road; G. Worsfold & Co., house into three flats, 2, Campden-road; F. W. Edwards & Son, house, 107, Pollards Hill South; Paish, Tyler & Crump, 26 houses, Wharncliffe-gardens; seven garages, 367, London-road; L. W. A. Coomes, house and shop, Thornton-road; Bessant Brown, Ltd., house and garage, Bramley Hill; R. Pierson, four bungalows, Downstead-road; G. H. Dales, bungalow, Haling Park-road; A. C. Matthews, 12 houses, Falkland Park-avenue.

DORKING.—The County E.C. propose acquiring a site for the erection of a secondary school.

DUBLIN.—The following plans for new buildings and works of construction in Dublin have been approved by the City Architect, Mr. Horace T. O'Rourke: St. James's-terrace, Dolphin's Barn house, J. McGough; Beresford-street, club house, J. Jameson & Son, Ltd.; Bishop's-court, extension of factory, W. & R. Jacob & Co.; Marino, national school. Rev. John Flanagan; Grantham-street, store, W. McEvoy; Cabra-road, two houses, Saorstat Civil Service Utility Society.

DUNGANNON.—The U.D.C. are to erect 14 artisans' dwellings at Charlemont-street.

EAST BARNET.—The U.D.C. passed plans: Five shops in Lytton-road, for P. Prentice; house in The Drive, for J. M. Chatfield; bungalow in Park-road, for W. Clarke; two houses in Clifford-road, for H. A. Champ; three houses in Crescent-road, for W. S. Jackson; two houses in Netherlands-road, for W. C. Leak & Sons.

ENFIELD.—Nearly £500 has been realised at an Enfield bazaar in aid of a fund for the restoration of the 1,000 year-old parish church.

ETON.—The R.D.C. has passed plans for the following districts: Wraysbury.— Garage and flat in Staines-road, for S. A. Harvey; house on Manor Farm estate, for R. Wood. Stoke Poges.—House in Gray's Park, for Mrs. Norton; house in Stoke-road, for Miss L. M. Lucas; and one for H. Gray. Wexham.—House in Wexham Woods estate, for F. W. Ireland. Gerrards Cross.—House in Windsor-road, for F. Piesse; house in Fulmer-lane, for L. Hutchings. Burnham.—Three lock-up garages, wood store and dressing-room at the "White Horse" public house, for Noakes & Co., Ltd.; sanitary accommodation to building in Buckingham-avenue, for the Slough Estates, Ltd.; house in Bath-road, for H. & C. Rochford, Ltd.; three houses in Lent Rise, for Badnell Bros.; house in Windsor-lane, for Major H. W. Gay; 50 houses in New-road, for G. C. Smith; house in Hogfair-lane, for C. R. Holloway. Farnham Royal.—House in Farnham-road, for C. J. Hayes. Horton.—House in Horton-lane, for W. Barnard. Iver.—House in Richings Park, for E. L. Hooper; house at Richings Park, for S. H. Leach; house in Richings Estates, for Mrs. A. Bradley; house in Love-lane, for A. Burley.

FELTHAM.—The Primitive Methodists are to have a new church.

FFORESTFACH.—An elaborate public hall and recreation rooms for Fforestfach Welfare Centre, and tenders have been invited from builders and contractors for their erection. The architect is S. R. Crocker, Swansea, and the centre is to be built in Ravenhill-road, near the Cross, Fforestfach.

FOLKESTONE.—A site for a larger church school at Folkestone has been bought.

FRIMLEY.—Plans are to be prepared for the erection of 24 houses on the Watchett's site.

GREENFORD.—A public inquiry has been held by the M.H. into the application of the late Greenford District Council for approval of a preliminary statement of proposals for development in connection with the Greenford town-planning scheme.

HAMPTON COURT.—A scheme is being put forward by the Molesey District Council for the development of a large piece of land on the south bank of the Thames, opposite to Hampton Court Palace and grounds. It is proposed to acquire the land on behalf of the public and lay it out for use as a riverside pleasure and recreation ground, with a sports field in the rear. The scheme has the approval of the neighbouring authorities and the Office of Works.

HARPENDEN.—The Council has passed plans: Eight garages in High-street, for Read's Motor Works; a pair of houses in Sun-lane, for J. Catton; three houses at Roundwood Park, for J. Catton.

HATFIELD.—The West Riding E.C. has approved the tenders for the erection of a new school for the Hatfield and Stamforth Dunscroft district, at a cost of £17,886.

HAWARDEN.—The R.D.C. has received sanction from the M.H. to borrow about £35,000 for the erection of 80 houses at Ewloe and the construction of streets.

HECKMONDWIKE.—The West Riding E.C. recommend that for the purpose of carrying out extensions to the High-street Council School, a plot of land adjoining the school be purchased.

HENDON.—The Council passed plans: Detached house and garage, Neeld-crescent, for G. E. Gallifford; 16 houses with sewers, Park-road, Watford by-pass-road, for Haymills, Ltd.; detached house, West Heath-road, Golders Green, for V. Lefebure (Wm. Willett, Ltd., builders); one pair semi-detached houses and one detached house, Finchley-road, for F. Perry & Sons; transformer house, Cricklewood-lane, and transformer house, Sunningfields-crescent, for the Hendon Electric Supply Co.; six houses and four garages, 27, 29, 31 & 33, Sunbury-avenue, Mill Hill, and 4 & 6, Selvage-lane, Mill Hill, for Gillett & Co.; two houses with garages, Lyndale-avenue, Child's Hill, for Thos. Reeder; house, Dunstan-road, Golders Green, for Briance & Bliss; nine detached houses, Uphill-road, Mill Hill, for C. Cuddeford (Lamb & Hook, builders); 11 houses, Sunny-gardens, Hendon, for Mr. McEwen; house and garage, Greenfield-gardens, Golders Green, for I. Milam.

HESTON AND ISLEWORTH.—The U.D.C. are to make application to the M.H. for sanction to the borrowing of £858 for the erection of six additional slipper baths at the Isleworth Baths.—The U.D.C. passed plans: Perry Bros., 12 houses, Great West-road; Harvey & Co., two garages, Heston-road; Dodge & Reid, two houses, new road off Jersey-road; H. A. Steel, two houses, Inwood-road; P. Watkins, two houses, Great West-road extension; P. Chase Gardener & Co., two houses, Alexandra-gardens; S. Baxter, house, Martindale-road; Osterley Park Construction Co., for amended plan of houses, Ridge-way-road; A. Forsyth, house, Heston-road; P. Chase Gardener & Co., two houses, Sutton-lane; P. Chase Gardener & Co., house, The Oaks Estate, Bath-road; P. Chase Gardener & Co., club rooms, North-street; Austin Hall, new stores and offices, Alexandra-road.

HIRST COURTNEY.—The West Riding E.C. recommend that a head teacher's house be erected at the Hirst Courtney and Temple Hirst proposed new school at an estimated cost of £600.

HOLLINGBOURNE.—The R.D.C. sanctioned the following plans: Bungalows at Bredhurst, for Mrs. Rose, and Boxley, for Mr. Middleton; cottage at Headcorn, for G. Mercer; bungalow and tea rooms at Broomfield, for C. Dawson.

HOLYWELL.—The R.D.C. has embarked upon a series of housing schemes in the Mold district. Altogether about 300 houses are being built at a cost of about £130,000.

* See also our List of Contracts, Competitions, etc.

HULL.—The directors of the L. & N.E.R. Co. have sanctioned the reconstruction of No. 28 warehouse at William Wright's Dock.

KEIGHLEY.—The West Riding E.C. recommend that an order be made and submitted to the B.E. for the acquisition of a plot of land in Utley-road, which is required for building purposes for the Keighley Drake and Tonson's School and the Keighley Trade and Grammar School.

LEAMINGTON.—The M.H. has forwarded sanction to the appropriation of certain land forming part of the Lillington Highways Depot, and the Borough Surveyor was instructed to advertise for tenders for the erection of six houses on this land.—The Ministry has also approved the erection of 66 houses on Rushmore Farm estate.—Plans passed: House, Guys Cliffe-avenue, for Dr. F. Clayton; house, Northumberland-road, for Mrs. T. W. Meakin; eight houses, Cubbington-road, for Leamington Slum Clearance, Ltd.

LEEDS.—Application is to be made to the M.H. for sanction to the borrowing of £2,835 in connection with the reconstruction and re-organisation of the Tuberculosis Dispensary, New Briggate.—The T.C. resolved that the plan of proposed alterations to the dining room, cafe, kitchen and dance hall in the basement of the Majestic Cinema, City-square, be approved.—Tenders are to be invited for interior painting work at Gateforth Sanatorium.—Sanction has been received to the borrowing of the following sums: From the Electricity Commissioners, £19,000 for the purchase of the Redcote Farm estate; from the M.H., £500 for provision of office and lavatory accommodation at Potternewton Park and tennis pavilion at Holbeck Moor, £5,900 for rebuilding of Mansion Stables, Roundhay, and provision of shelters and conveniences at various parks and recreation grounds; £125,000 in connection with the provision of housing accommodation, £3,535 for purchase of land off York-road.—The Corporation has decided to invite tenders for another 170 houses on the Wyther estate.

LONDON.—The L.C.C. has granted the following:—Six houses in Footscray-road, Eltham, by W. E. Wright; three houses in Southwood-road, Eltham, by Chatterton & Co.; four houses in Coniston-road, Lewisham, by A. Kirkham; seven houses in Footscray-road, Eltham, by G. T. Scudamore; 17 houses in Glenesk-road and Dunvegan-gardens, Eltham, by W. Childs; 50 houses in Farmcote-road, and Baring-road, Lee, by Eaglen Bros.; two houses in Southwood-road, Eltham, by J. G. Witcombe; house and garage in Bexley-road, Eltham, by W. Childs; four houses in Bromley-road, S.E., by H. Newton & Co.; four houses in Bromley-road, S.E., by A. E. Thomas; four houses in Amblecote-road, Grove-park, by J. Paris & Co.; eight houses in Glenlea-road, Eltham, by Flood & Wright; development of the Lewisham M.B.C.'s housing estate at Grove-park, S.E.; six houses in Montacute-road, Catford, by Middletons, Ltd.; seven lock-up garages at rear of "Sunnyside," Glenlea-road, Eltham, by Mrs. H. E. Smith.

LONDON (BRIXTON).—A £26,000 elementary school is being built by the L.C.C. in Sudbourne-road.

LONDON (CITY).—The General Purposes Committee of the Corporation recommend that repairs and renovations be carried out at the Mansion House for the ensuing Mayoralty, at a cost not exceeding £1,200.

LONDON (KENTISH TOWN).—The L.C.C. has authorised the construction at a cost not exceeding £320 of a shed adjoining the motor lorry garage at the Kentish Town permanent way depot.

LONDON (SOUTH).—The Bishop of Southwark states that £43,000 has been received towards the fund of £200,000 to provide 25 churches for areas now being developed on the outskirts of South London.

LONDON (VICTORIA).—Shops are to be built on the forecourt of Victoria Station.

LONDON (WIMBLEDON).—Plans have been approved by the B.E. for the erection of a temporary building at the Technical Institute, at an estimated cost of £1,029.

LYNN.—The T.C. has approved plans: Post-mortem room at Lynn Hospital; garage and showrooms, corner of Vancouver-avenue, L. E. Taylor; two houses, Gaywood-road, Foreman & Sons; two cottages, Burkitt-street, J. J. Bone.

MALTBY.—The West Riding E.C. recommend that scheme No. 2 for the planning of the proposed new secondary school be approved, at an estimated cost of £9,000 in respect of the school buildings and £750 for the erection of a caretaker's house—The Committee also recommend that 500 yds. of unclimbable iron fencing be provided for fencing in the site of the secondary school, at an estimated cost of £300.

MANCHESTER.—Messrs. Selfridge are considering the purchase of a large Manchester site at present occupied by Victoria Buildings. The property includes the Victoria Hotel and belongs to the Corporation. The last offer for the property was £400,000.

MARGAM.—A proposal is on foot for the construction of a racecourse at Margam, near Neath, at a cost of £100,000.

MERTON ABBEY.—The B.E. has approved final plans of the Merton Abbey Council Schools, which are estimated to cost £12,870.

MITCHAM.—The U.D.C. passed plans: Mr. Parry, eight houses, Langdale-avenue, Mitcham; Poole Bros., house and garage, junction of Church-road and Western-road; H. Poulson, house, Hill-road; H. Poulson, 19 houses (for subsidy), Annie-road, Mitcham; Collier's Wood Service and Engineering Co., Ltd., nine lock-up garages, rear of 63, High-street, Collier's Wood.

MOUNTGARRETT.—The Ferry Mountgarrett Bridge Commissioners have approved plans for the erection of a ferro-concrete bridge in place of existing timber structure.

NEWCASTLE.—The Corporation Town Improvement and Streets Committee has approved plans for the erection of 18 houses.

NEWTON ABBOT.—The R.D.C. has passed plans: Four bungalows at Cockington and lay-out plans; conversion of shed into dwelling-house at Hind-street, Bovey Tracey, for W. G. Heath; house at Knowle, Bovey, for E. J. Martin Johnson; bungalow at Chudleigh-road, Kingsteignton, for Mrs. C. Coles; bungalow at Maidencombe, for R. B. Williams; bungalow on Edginswell-road, Kingskerswell, for J. H. Richards; bungalow at Cockington, for S. Boulters; house at Moor Park, Bovey, for F. Ainsworth.

PRESTON.—The C.B. passed plans: Briggs & Thornely, school, Frenchwood-avenue; G. Moorcroft, two houses, Ribbleton-avenue; J. Miller, four houses, The Crescent; H. Heaton, 10 houses, Arneth-road; A. Lockwood, house, Blackpool-road; W. Smirk, 15 houses, Abingdon-drive (seven), Hazelmere-road (four), Egerton-road (four).

RATHMINES.—The U.D.C. has decided to make application to the Local Government Department for sanction to a loan of £40,000 for the erection of public baths.

REIGATE.—The R.D.C. has passed plans: Burstow, bungalow, Chapel-road, J. W. Powell; Charlwood, bungalow, Brighton-road, Lowfield Heath, Mr. Rayner, per Mr. Blunden Shadbolt, Horley; Chipstead, house, Hollymead-road, J. N. Keasley, Meadvale; Horley, bungalow, Lonesome-lane, W. J. Watt, Mynthurst, Reigate; bungalow, Limes-avenue, A. R. Harvey, Horley; Nutfield, house, Holmesdale-road, D. Wilderspin, South Nutfield; house, Mid-street, Beecroft, per H. J. Edwards, South Nutfield.

SALFORD.—The Town Halls and Markets Committee recommend the provision of an abattoir and cold-air stores on a portion of the site of the Cattle Market, Cross-lane.

SANDWICH.—A site has been given for the erection of a Catholic church.

SCARBOROUGH.—The Harbour Commissioners have received from Mr. Paul, the engineer in charge of the work, an amended scheme for the deepening of the harbour.

SHOREHAM.—The Catholics are to erect a new hall.

SOUTHEND-ON-SEA.—The C.B. passed plans: House, Cumberland-avenue, E. Wisker; house, St. Clement's-drive, Mrs. J. Rose; offices, shop and hall, Lindisfarne-avenue, E. F. Selby; new church hall, Gainsborough-drive, for trustees of the Wesleyan Methodist Church; six houses and shop, Gainsborough-drive, and four houses and shop, Fairfax-drive, for T. Wiggins; house, Lonsdale-road, E. Wisker; two bungalows, Shakespeare-drive, C. Keys; two houses, Redcliff-drive, H. Brewer; house, Dundonald-drive, Bass & Smee; two houses and bungalow, Western-road, F. C. Higgins; three houses, Duke of Manchester-drive, Mrs. J. Rose; bungalow and garage, Madeira-avenue, G. Eves; shop and flat over, Pall-mall, G. Eves; semi-bungalow, Sidney-road, W. Robinson; house, The Crossways, A. J. Cross; bungalow, Parkanaur-avenue, H. J. Manners; two bungalows, Selwyn-road, Mrs. M. Mell; bungalow, Southbourne-grove, Mrs. A. Backhouse; offices, shop and hall, London-road and Lindisfarne-avenue, E. F. Selby; house and garage, Fillebrook-avenue, S. Pryor; house, Hall Park-avenue, Tomkins & Smith; two houses, Pavilion-drive, W. Dawes; four houses and garage, St. Clement's-avenue, W. Ford; house, Central-avenue, W. T. Cusdin; new church hall, West-road, trustees of the Wesleyan Methodist Church; three houses, Cheltenham-drive, R. W. Walker; bungalow, Highfield-grove, Everitt & Pratt; two pairs of flats and five garages, Fairfax-drive, T. J. Dennis; 10 houses, shop and two garages, Gainsborough-drive and Fairfax-drive, T. Wiggins; three houses, Southsea-avenue, Donovan & Whitaker; bungalow, The Ridgeway, F. G. Bethley; warehouse and showrooms, Station-road, Leigh, Prittlewell Sand Pits Co., Ltd.; three houses, Southsea-avenue, Donovan & Whitaker; two houses, Tyrone-road, W. L. Allan; house, North-avenue, T. King; two houses, York-road, G. W. Potter; three bungalows, St. James-avenue, Mrs. R. Hollins; bungalow, St. Clement's-drive, G. Wood; four houses, Central-avenue, C. W. Leswell; two houses, Cheltenham-drive, F. A. Mowle; bungalow, The Ridgeway, F. G. Bethley; bungalow, Darlinghurst-grove, Webberley Bros.; four houses, Cumberland-avenue, P. Stanton; house, Hall Park-avenue, Tomkins & Smith; two houses, Leas-gardens, W. A. Schrier; shop with two flats over, Southchurch-road, London Co-operative Society, Ltd.; house and garage, Southborough-drive, F. G. Houchin; two houses, Bailey-road, Twitchett & Co.; two houses, Brunswick-road, Mrs. M. A. L. Squirrell; four flats and two garages, Hadleigh-road, S. F. Johnson.

TYNEMOUTH.—The T.C. passed plans: Twelve houses, St. George's Estate, Cullercoats, by J. R. Wallace, for H. D. Burton; 12 houses, semi-detached, St. George's estate, Cullercoats, by F. R. N. Haswell & Son, for J. & J. Robison; 10 houses, semi-detached, St. George's estate, Cullercoats, by J. R. Wallace, for Beautyman & Gray; six semi-detached houses, Balkwell, by W. Stockdale, for W. Brand; 10 bungalows, semi-detached, Billy Mill, near Lynn Villa, by F. R. N. Haswell & Son, for Brannen Bros.; house and shop, Front-street, Chirton, by W. Stockdale, for W. Brand; six houses, "Sunnside" Field, Balkwell, by Hays & Gray, for Hodgson & Swan; two houses, Camp-terrace, by A. K. Tasker, for G. A. Leck; six semi-detached houses, St. George's estate, Cullercoats, by J. R. Wallace, for Thos. Gibson.

WAKEFIELD.—The West Riding C.C. are to erect new offices in Wood-street, at a cost of £21,547 14s. 3d.

WELLINGBOROUGH.—The U.D.C. passed plans: Two houses in Croyland-road, two in Hatton-avenue, six in Weavers-road, one in Doddington-road, and a bungalow in Cross-road.—The Council has decided to instruct the Surveyor to prepare plans and estimates for the provision of a sports pavilion and tea rooms at Swanspool, alternatively for a new building and the conversion of existing buildings.

FIRE.

DUNDEE.—Damage estimated at between £20,000 and £25,000 has been caused by a fire which destroyed the dressing department of Camperdown Jute Mills, Lochee.

PATENTS.

APPLICATIONS PUBLISHED.*

252,542.—G. L. Ericsson: Floor and like coverings.

252,583.—C. Westphal and R. Grieger: Methods of building with concrete.

242,294.—J. Laurent: Roof construction for kilns.

230,443.—A. Grossmann: Mould for making slabs and tiles.

252,777.—J. E. L. Barnes: Method of manufacturing building-units.

237,860.—K. J. Ljunberg: Method of building reinforced-concrete structures.

252,803.—Expanded Metal Co., Ltd., and H. Booton: Manufacture of wall-ties.

252,812.—A. W. Farnsworth and T. H. Thorpe: Construction of buildings.

252,839.—J. Livingstone: Walls for buildings.

252,948.—F. H. Bellamy and S. H. Hamp: Walls.

252,951.—T. Simpson and J. Thompson: Wall-scaffolding.

252,954.—S. Lake: Concrete building-element.

252,975.—A. G. Rotinoff: Reinforced concrete.

252,780.—G. E. Heyl: Cement and lime burning.

252,788.—H. J. D. L. Walmsley, W. J. Worthington, and E. A. Donaldson: Tiles.

253,041.—Himmelsbach Akt.—Ges., Geb.: Process of preserving wood.

253,053.—H. F. Menck: Excavating-resisting casing.

252,784.—A. Leyland: Composition for use in buildings.

253,007.—Broadway Trust Co., Ltd., C. D. Burney and J. E. Temple: Manufacture of light forms of concrete or artificial wood.

253,181.—W. E. Nelson: Walls and like structures.

253,183.—E. Richards: Pipe clips.

253,222.—D. H. Stent: Casting concrete walls.

253,237.—A. L. Kendrick: Construction of walls.

253,259.—J. Gates: Fireproof blocks.

253,271.—H. Moll: Perforated bricks and checker-work.

253,318.—S. J. Gammell: Shuttering.

233,698.—U. B. Voisin: Process for the manufacture of an aluminous cement.

253,330.—W. Wilson: Manufacture of faced or ornamental concrete.

237,277.—Stevens Sound-Proofing Co.: Floors.

247,918.—P. Liese: Composite glass and ferro-concrete coverings.

253,539.—F. J. Lee and C. Fouracre: Machine for moulding concrete.

253,647.—W. P. Stanton: Method of manufacturing hollow concrete building-blocks.

253,678.—A. W. Farnsworth and T. H. Thorpe: Sectional roof coverings.

253,706.—J. Cramer: Shuttering for use in building cement and like walls.

253,721.—G. H. Downes: Building-blocks.

253,177.—S. F. Turner, Ltd., and A. J. Dainty: Firegrates and curbs.

253,448.—R. Illemann: Process for the manufacture of cement out of spent or waste lime.

253,962.—H. Bloomfield. Concrete houses and like structures.

253,963.—C. M. C. Hughes. Road-making.

254,006.—T. H. F. Burditt. Filler blocks or tiles.

254,007.—T. H. F. Burditt. Hollow tiles.

254,008.—T. H. F. Burditt. Walls.

254,009.—T. H. F. Burditt. Moulds for casting structures of concrete.

254,010.—T. H. F. Burditt. Chimneys.

254,018.—C. J. Fox. In situ building.

254,019.—J. W. Norman. Production of curvilinear or concavo-convex articles.

234,085.—A. Chanard. Chimneys.

254,070.—J. Cramer. Shuttering.

253,967.—C. Mercer. Seats for cinemas, theatres, and other public places.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

PRICES CURRENT OF MATERIALS

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 5 6
Second Hard Stocks	3 19 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs	9 5 0
Do. grooved for Plaster	2 15 3	Do. Bullnose	9 15 0
Do. Bullnose	3 8 3	Blue Wire Cuts	7 5 0

Best Stourbridge Fire Brick:—

2½ in.	8 11 0	3 in.	10 3 0

Glazed Bricks—

Best White Ivory, and Salt Glazed Stretchers	23 0 0	D'ble Str'tch'rs	31 10 0
		D'ble Headers	28 10 0
		One Side and two ends	32 10 0
		Two Sides and one End	33 10 0
		Splays and Squints	31 0 0
Headers	22 10 0		
Quoins, Bullnose and 4½ in. Flats	29 10 0		

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	1 11	3 in. per yd. super	2 9
2½ in. " "	2 4	4 in. " "	3 6

	s. d.		
Thames Ballast	10 6	per yd.	delivered 2 miles radius Paddington.
Pit Sand	13 9	" "	
Thames Sand	14 6	" "	
Best Washed Sand	14 6	" "	
¾ in. Shingle for Ferro-Concrete	12 9	" "	
½ in. "	14 0	" "	
¾ in. Broken Brick	11 6	" "	
Pan Breeze	7 6	" "	

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification. Test £2 18 0 to £3 5s. alongside at Vauxhall in 80-ton lots.	£3 3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement (Waterproof)	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 16 9
Chalk Lime	2 16 9
Best Ground Blue Lias Lime	2 9 6
Hair per cwt.	2 2 6
Granite Chippings	1 12 0

Note.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at riy. dp.

STONE.

	s. d.
Bath Stone—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
Portland Stone— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	
Note.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	

	s. d.
Hopton-Wood Stone— Delivered at any Goods Station, London.	
Random blocks from 10 ft. and over	P. ft. cb. 17 0
Sawn two sides	" 27 0
Sawn three or four sides	" 32 0
York Stone, Blue—*Robin Hood Quality.* Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 30 ft. super.)	Per ft. super 5 6
6 in. rubbed two sides, ditto	" 6 0
3 in. sawn two sides slabs (random sizes)	" 2 3½
2 in. to 2½ in. sawn one side slabs (random sizes)	" 1 6½
1½ in. to 2 in. ditto, ditto	" 1 4
Hard York— Delivered at any Goods Station, London.	
Scappled random blocks	Per ft. cube 6 3
6 in. sawn two sides landing to sizes (under 40 ft. super)	Per ft. super 5 1½
6 in. rubbed two sides, ditto	" 6 1½
4 in. sawn two sides slabs (random sizes)	" 2 10
3 in. ditto ditto	" 2 1½
2 in. self-faced random flags	Per yd. super 9 0

CAST STONE.

Delivered in London Area in full van loads, per ft. cube:—Plain, 8s. 6d.; Moulded, 9s. 6d Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£28 0	3 × 6	£21 0
4 × 9	25 0	3 × 11	25 0
4 × 8	24 0	2 × 11	25 0
4 × 7	23 0	3 × 9	24 0
3 × 8	21 0	2½ × 9	23 0
3 × 7	20 0	3 × 4½	22 0
2½ × 7	20 0	3 × 4	22 0

PLANED BOARDS.

1 × 11	£27 0	1 × 9	£26 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	20/-	1¼	31/-
¾	22/-	1½	34/-
1	25/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.	Inches.	per sq.
1	25/-	⅝	16/6
1¼	31/-	¾	19/-
1½	34/-	1	24/-

BATTENS.

Inches.	s. d.
⅝ × 2	2 6 per 100 ft.

SAWN LATHS.

Per bundle	0 2 4

1" AND UP THICK.

	£ s. d.	£ s. d.
Dry Austrian Wainscoat, per ft. cube	0 16 0 to	0 18 0
Dry American and /or Japanese Figured Oak, ft. cube	0 15 0 to	—
Dry American and/or Japanese Plain Oak, ft. cube	0 11 0 to	0 13 0
Dry sq. edged Honduras Mahogany, ft. cube	0 16 0 to	0 18 0
Dry Log cut Honduras Mahogany, ft. cube	0 18 0 to	1 1 0
Dry Cuba Mahogany, ft. cube	1 4 0 to	1 10 0
Dry Teak, ft. cube	0 13 0 to	0 15 0
Dry American Whitewood, ft. cube	0 11 0 to	0 14 0
Best Scotch glue, per cwt.	4 10 0 to	—
Liquid Glue, per cwt.	4 7 0 to	5 10 0

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Delivered at London rate stations in full truckloads of not less than 4 tons.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 12 6
Ditto hand-made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles (per dozen) Hand-made	0 9 6
Hip and valley tiles (per dozen) Machine-made	0 9 0

METALS.

Joists, Girders, &c., to London Station, per ton—

	£ s. d.
R.S. Joists, cut and fitted	12 10 0
Plain Compound Girders	14 10 0
Stanchions	16 10 0
In " Roof " Work	19 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	12 0 0	⅜ in. to ½ in.	10 15 0
⅜ in.	11 0 0	⅝ in. to 2½ in.	10 10 0

Wrought-Iron Tubes and Fittings—(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Black Gas	60 %	50 %	60%
Galvanised Gas	45 %	40 %	50%
Blue Water	55 %	45 %	55%
Galvanised Water	38½ %	35 %	45%
Red Steam	50 %	40 %	50%
Galvanised Steam	32½ %	30 %	40%

C.I. Half-Round Gutters—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/3½	11½d	3½d.
3½ in.	1/4½	1/1½	3½d.
4 in.	1/6	1/3	3½d.
4½ in.	1/7½	1/4½	4½d.
5 in.	1/10½	1/6½	5½d.

O.G. Gutters.

3 in.	1/8	1/4½	3½d.
3½ in.	1/8	1/4½	3½d.
4 in.	1/9½	1/4½	3½d.
4½ in.	1/11½	1/7½	4½d.
5 in.	2/4½	1/10½	5½d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/10½	1/3	1/9½
2½ in. "	2/0½	1/4½	2/1½
3 in. "	2/6	1/9	2/7½
3½ in. "	2/11½	2/0½	3/0½
4 in. "	3/5	2/6½	3/8½

L.C.C. Coated Soil Pipes—London Prices, ex Works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. per yd. in 6 fts. plain	3 3	2 4½	2 10
2½ in. "	3 9	2 7½	3 7
3 in. "	4 6	2 10	4 2½
3½ in. "	4 11½	3 7	4 11½
4 in. "	5 5½	4 0½	5 9

L.C.C. Coated Drain Pipes—London Prices ex Works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
3 in. per yd. in 9 ft. lengths	4 4	5 1	8 0½
4 in. " "	6 2	5 8	10 0
5 in. " "	7 2	10 10	17 1
6 in. " "	8 6	13 2	21 9

Gasken for jointing, 38/6 per cwt.

Iron—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 0 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 5 0	—	15 5 0
Staffordshire Marked Bars	16 5 0	—	17 5 0
Mild Steel Bars	10 0 0	—	11 0 0
Steel Bars, Ferro-Concrete quality, basis price	10 0 0	—	11 0 0
Hoop iron, basis price	12 0 0	—	13 0 0
" Galvanised	27 0 0	..	28 0 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	13 5 0	..	14 5 0
" " " 24 g.	14 5 0	..	15 5 0
" " " 26 g.	16 5 0	..	17 5 0
Sheets Flat Best Soft Steel, O.R. & O.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15 10 0	..	16 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	16 10 0	..	17 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	18 10 0	..	20 10 0
No. 1 quality £4 per ton extra.			
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	18 10 0	..	19 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	19 0 0	..	20 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	22 0 0	..	23 0 0
Sheets Galvanised Flat. Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	22 0 0	..	23 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 0 0	..	26 0 0
Best Soft Steel Sheets, 26 g.	25 10 0	..	26 10 0
Cut Nails, 3 in. to 6 in. (Under 3 in. usual trade extras.)	19 0 0	..	20 0 0

Metal Windows.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
Lead—Sheet, English, 4 lb. and up	44 0 0
Pipe in coils	45 10 0
Soil Pipe	47 10 0
Compo Pipe	48 10 0

Note—Country delivery, 30s. per ton extra: lots under 3 cwt., 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	29	0	0 —
Do., ex country, carriage forward per ton	30	0	0 —

COPPER.

		s. d.
Seamless Copper tubes (basis)	per lb.	1 1
Strong sheet	"	1 0
Thin	"	1 1
Copper nails	"	2 3
Copper wire	"	2 4

PLUMBERS' BRASS WORK.

Delivered in London.

New River Pattern Screw Down Bib Cocks for Iron.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

New River Pattern Screw Down Stop Cocks and Unions.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

New River Pattern Screw Down Main Ferrules.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

Caps and Screws.

1½ in.	1¼ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

Double Nut Boiler Screws.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	29/-	36/-	63/- per doz.

Brass Sleeves.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

New River Pattern Croydon Ball Valves, S.F.

½ in.	¾ in.	1 in.	1½ in.
35/-	56/-	98/-	162/- 228/- per doz.

Drawn Lead P. & S. Traps with Brass Cleaning Screw.

	1½ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- "

Tin—English Ingots, 2/10 per lb. Solder—Plumbers' 1/3, Tinmen's 1/6, Blowpipe 1/7 per lb.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil,	in pipes per gallon	0 3 2
" " "	in barrels "	0 3 3
" " "	in drums "	0 3 5
Boiled " "	in barrels "	0 3 5
" " "	in drums "	0 3 8
Turpentine	in barrels "	0 3 3
"	in drums (10 gall.) "	0 5 5
Genuine Ground English White Lead, (In not less than 5 cwt. casks.)	per ton	52 15 0
Genuine White Lead Paint— "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco." "J" Brand and other best brands (in 14 lb. tins) not less than 5 cwt. lots	per ton delivered	71 5 0
Red Lead, Dry (packages extra)	per ton	44 0 0
Best Linseed Oil Putty	per cwt.	0 15 0
Filocol	"	0 15 6
Size. XD Quality	fkn.	0 3 6

Continued on next page.

*The information given on this page has been specially compiled for The Builder and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*).

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per ft.		Per ft.
15 oz. fourths ..	3 d.	32 oz. fourths	7½d.
15 „ thirds	4d.	32 „ thirds	9½d.
21 „ fourths ..	4½d.	Obscured Sheet, 15 oz...	3 d.
21 „ thirds	5½d.	„ „ 21 „ ..	5½d.
26 „ fourths ..	5d.	Fluted 15 oz. 6½d., 21 oz.	9½d.
26 „ thirds	7½d.	En'lled 15 oz. 5½d., 21 oz.	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½d.
⅜ Rough rolled	5½d.
½ Rough rolled	6d.
Figured Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White..	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted Do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per Gallon. £ s. d.
Oak Varnish.....	Outside	0 14 0
Fine ditto.....	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best ditto.....	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Platting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak.....	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 6
Best Black Japan		0 10 6
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black.....		0 7 6
Berlin Black.....		0 14 6
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

TRADE NEWS

Additional Telephone Lines.

The General Electric Co., Ltd., announce that, owing to expanding business, they have found it necessary to augment the existing telephone service at their Head Office, Magnet House, Kingsway, W.C.2, by the addition of further lines. Regent 7050 now has 61 lines.

Road Improvements.

Roadway improvements are to be put in hand at King's Sutton for the Brackley R.D.C., Mr. Cyril M. Rogers, Highway Surveyor. The work, which consists of strengthening the foundation and re-surfacing with "Asphaltic Slag," has been placed in the hands of Messrs. William Shepherd & Sons, Ltd., Milkstone, Rochdale, the manufacturers of the material.

Paint, Colour, and Varnish Research.

The Secretary of the Department of Scientific and Industrial Research announces that a licence under Section 20 of the Companies (Consolidation) Act, 1908, has been issued by the Board of Trade to the Research Association of British Paint, Colour and Varnish Manufacturers, which has been approved by the Department as complying with the conditions laid down in the Government scheme for the Encouragement of Industrial Research. The Secretary of this Association is Mr. J. B. Graham, 8, St. Martin's-place, Trafalgar-square, W.C.2.

Edinburgh Housing.

A favourable account of the position of housing in Edinburgh has just been issued by the retiring Dean of Guild. The number of dwellings for which warrant was given during the past year constituted a record. Of the 2,586 houses passed by the Court, 19 were self-contained villas, 1,559 bunglaows and flats, and 1,008 tenement houses.

Builder's Estate.

Mr. Alexander M'Taggart, of 48, Dinmont-road, Shawlands, Glasgow, sole partner in the firm of Hugh M'Taggart & Sons, wrights and building contractors, has left an estate of £6,341.

THE SCOTTISH BUILDER

HOUSING PROGRESS IN SCOTLAND

The following figures show the progress that has been made in State-aided housing schemes in Scotland to September 30, 1926 :—

	Completed.	Under Construction.
1919 Act	25,520	.. 30
Private Subsidy Schemes ..	2,324	.. —
Slum Clearance Schemes ..	3,911	.. 2,863
1923 Act—		
By Local Authorities ..	2,360	.. 1,408
By Private Enterprise..	7,299	.. 3,012
1924 Act—		
By Local Authorities....	3,113	.. 12,586
By Private Enterprise ..	207	.. 192
Demonstration Houses ..	17	.. —
	44,751	20,091

NEW BUILDINGS IN SCOTLAND

Stornoway.—BUILDINGS.—The Town Council has decided to reconstruct the Municipal Buildings. The new building will be erected on the same site and will cost between £17,000 and £18,000. The architect for the work is Mr. J. G. Chisholm, Union-street, Inverness.

Dundee.—BUILDINGS.—Plans and sections of the proposed new buildings, &c., which have been lodged at the Office of the City Engineer, are as follows: Broughty Ferry-road, house, for Mr. C. Gray; Byron-street and Strathmore-avenue, houses, for the Town Council; Claypots-road, Broughty Ferry, bungalow, for Mr. A. Wood.

Aberdeenshire.—BRIDGE.—A contract has been placed with Messrs. W. J. Anderson, of Aberdeen, for the construction of 12 reinforced concrete bridges to complete the Great North Road of Scotland between Blair Atholl and Inverness. They are all to be erected between the Inverness-Perth county boundary and the Spey Bridge. The cost of the whole scheme, which is being borne by the Ministry of Transport, is approximately £600,000.

Glasgow.—CLEARANCE.—The Medical Officer of Health for Glasgow has been asked by the Housing Committee to consider a further slum clearance scheme.

Edinburgh.—The Dean of Guild Court has passed plans: Governors of George Heriot's Trust, alterations at 79, Grassmarket, by converting an old brewery into mining laboratories and lecture-rooms. The cost of the new mining school will be over £20,000. A. Walker Bell, house and garage, off Lanark-road, Kingsknowe; Miss M. Dodds, bungalow at Queensferry-road, Barnton; J. Henderson & Son, two houses at Kingsknowe Station-road; F. Hooper, house and shop at Restalrig-road, Lochend.

Dundee.—BUILDING.—An application has been made on behalf of St. Matthew's Parish Church for the feu of a piece of ground at Craigiebank for the erection of a church building. The site is at the junction of Greendykes-road and Broughty Ferry-road.

Glasgow.—HOUSES.—The Dean of Guild Court has passed the following plans: Blythswood Picture House, Ltd., picture house in Maryhill-road, at Well-road; J. C. C. Munro, four houses in Fernleigh-road, Newlands; J. Young, houses at Wedderlea-drive, Erskine-road, and Westfield-drive; United Dairies (Scotland), Ltd., workshop at King-street, Calton (the cost is estimated at £10,000); Lauder & Shaw, four double bungalows in Ralston-avenue.

Pirfour.—PRESERVING.—The ruins of the ancient Abbey of Deer, Aberdeenshire, and the ground adjoining, situated on the estate of Pirfour, have been acquired by the Roman Catholic authorities for the purpose of preserving the remains.

Obituary.

The death has occurred at the Cottage Hospital, Castle-Douglas, of Mr. A. Urie, builder, 148, Glasgow-road, Paisley.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons', Bricklayers', Plasterers'.
Aberdeen	1/8	1/8½	1/8	1/8	1/8	1/8	1/7	10½d. to 1/1
Airdrie	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3
Alexandria.....	1/8	1/8	1/8	1/8	1/8	1/8	—	1/2½ to 1/3½
Arbroath	1/7	1/7	1/7	1/7½	1/7	1/7	1/5½	1/1½
Ayr	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3
Bathgate	1/8	1/8	1/8	1/8½	1/8	1/8	1/6½	1/2 to 1/3
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/-
Bo'ness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Coatbridge.....	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3 to 1/3½
Dumbarton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Dumfries	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dundee	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Dunfermline	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Edinburgh	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½
Fort William.....	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Galashiels	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Glasgow	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Greenock	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/0½ to 1/3½
Hamilton	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½
Hawick	1/7	1/7	1/7	1/7-1/7½	1/7	1/7	1/7	1/2½
Helensburgh	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½
Inverness	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/- to 1/3
Kilmarnock	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Kirkcaldy	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Kirkwall.....	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/-
Lanark	1/8	1/8	1/8	1/9	1/8	1/8	1/6	1/0 to 1/3
Leith	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Motherwell.....	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½
Perth	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3
Stirling	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Stirlingshire (Eastern District)	1/8-1/10	1/8 1/10	1/8	1/9	1/7	1/8	1/6½	1/3½
Wishaw	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 709.

CURRENT PRICES FOR BUILDING WORK IN LONDON

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	32	0
Add if in underpinning in short lengths	" "	7	0
Add if in floors 6 in. thick	" "	3	3
Add if in beams	" "	3	9
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	6

BRICKLAYER.

		£	s	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	10	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft super	0	0 1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0 3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0 10
Axed in stocks	" "	0	1 9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6 0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1 0
Setting ordinary register grates and stoves	each	1	0 0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15 0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	8	6
¾ inch on flats in two thicknesses	" "	6	3
Angel fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	2

MASON.

		s.	d.
York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	20	0

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	0
Do. joists	" "	5	6
Do. roofs, floors, and partitions	" "	6	0
Do. trusses	" "	8	6

	¾"	1"	1¼"	2"
Deal rough close boarding per sq.	35/6	40/-	45/-	72/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

	¾"	1"	1¼"	1½"
Deal-edges shot per sq.		44/6	53/-	60/6
Do. tongued and grooved "		49/-	57/6	65/-
Do. matchings "	45/-	51/-		
Moulded skirting, including backings and grounds per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super.	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

	1½"	1¾"	2"
Two-panel square framed per ft. sup.	2/1	2/4	2/6
Four-panel Do. "	2/5	2/8	2/11
Two-panel moulded both sides "	2/8	2/11	3/2
Four-panel Do. Do. "	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

	1"	1¼"	1½"
Plain deal jamb linings framed per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers "	1/4	1/6	1/9
Add if cross-tongued "	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail: average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roof work	"	27	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	"	1/9	2/-	2/6	3/3
Rain-water pipes with ears	"	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	59	0
Do. Do. in flats	"	58	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service	"	1/8	2/2	2/7	3/10	—	—
Do. soil	"	—	—	—	—	—	6/9
Bends in lead pipe	each	—	—	—	—	3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	—
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"	—	—	—	14/7	19/6	—
Bib cocks and joints	"	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	"	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	4
Do. Do. Sirapite	" "	2	7
Do. Do. Keen's	" "	3	7
Add sawn lathing	" "	1	7
Add metal lathing	" "	2	6
(Not including hangers or runners, &c., for suspended ceilings.)			
Portland cement screed	per yard sup.	2	2
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	8½
26 oz. Do.	" "	1	0
Obscured sheet	" "	1	1
¼ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	10½
½ in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	8
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10 % on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEW COMPANIES

The particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

Newland Property Co., Ltd. (216,343). Registered September 21. 19, Castle-street, Liverpool. Builders, demolishers, building contractors, &c. Nominal capital, £500.

Floor, Ltd. (216,320). September 20. Builders, contractors, decorators, &c. Nominal capital, £1,000.

Arnold Williams & Co., Ltd. (216,267). Registered September 17. Builders, decorators, &c. Nominal capital, £100.

Felpham Brick and Estates Co., Ltd. (216,261). Registered September 17. To carry on the business of brick and breeze block manufacturers, &c. Nominal capital, £3,000.

Brayshaw, Col rick & Co., Ltd. (216,204). Registered September 15. Builders and contractors for the erection and repair of houses, dwellings and buildings of all kinds, &c. Nominal capital, £500.

J. Rooke & Sons, Ltd. (216,198). Registered September 14. 97, Lewes-road, Brighton. Monumental mason, stone mason, builder, &c. Nominal capital, £1,500.

John Bedford & Co., Ltd. (216,444). Registered September 27. Builders and contractors for the erection and repair of houses, dwellings, &c. Nominal capital, £500.

W. J. Jennings & Co., Ltd. (216,458). Registered September 27. 52, New-Broad-street, E.C.2. Builders and contractors, &c. Nominal capital, £100.

S. Hewitt & Co., (London), Ltd. (216,456). Registered September 27. 56, Gough-street, Gray's Inn-road, W.C.1. General builders' merchant. Nominal capital, £2,500.

Lightwood Concrete Aggregates, Ltd. (216,404). Registered September 24. 52, New Broad-street, E.C.2. Manufacturers and workers of and dealers in cement, lime, plaster, and builders' requisites, &c. Nominal capital, £40,000.

Builders' and Glaziers' Supply, Ltd. (216,392). Registered September 24. 123, Station-road, Llanelly. Builders' merchants, ironmongers, oil and colour merchants, &c. Nominal capital, £550.

E. & T. Bower, Ltd. (216,351). Registered September 22. Public works contractors. Nominal capital, £10,000.

Atkinson Construction Co., Ltd. (216,346). Registered September 22. 49, Queen Victoria-street, E.C.4. Contractors, builders and engineers, &c. Nominal capital, £2,000.

Research Association of British Paint, Colour and Varnish Manufacturers. (216,387). Registered September 23. To promote the research and other scientific work in connection with the paint, colour and varnish industries, and industries allied therewith, or accessory thereto.

George Ball & Sons, Ltd. (216,440). Registered September 27. Slating and plastering contractors, builders, &c. Nominal capital, £2,500.

Unic Contractors, Ltd. (216,504). Registered September 29. General building contractors, &c. Nominal capital, £100.

James Sutton, Ltd. (216,515). Registered September 30. 2, Back Cambridge-road, St. Annes-on-the-Sea. Plasterers, painters, decorators, &c. Nominal capital, £1,500.

Appleyard Bros. (Bramley), Ltd. (216,581). Registered October 2. Builders, contractors, &c. Nominal capital, £1,000.

Briggs, Precious & Buckley, Ltd. (216,481). Registered September 29. Builders and contractors, &c. Nominal capital, £600.

Fowler Bros. (Cowfold), Ltd. (216,546). Registered October 1, Horsham-road, Cowfold, Sussex. Builders and contractors. Nominal capital, £10,000.

S. Gilmor, Ltd. (216,562). Registered October 1. New Courts Chambers, 57–58, Chancery-lane, W.C.2. Builders, decorators, &c. Nominal capital, £1,500.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

ALTRINCHAM.—Additions and alterations to premises in Stamford-road, for the Manchester & Salford Equitable Co-operative Society. Mr. Fielding, architect :—

*C.W.S., Broughton.

ATHLONE.—Twelve houses on the Batteries :—

*J. J. Murphy & Co.

BANGOR.—Bench of retorts complete, for the U.D.C. Mr. Barker Mitchell, Engineer and Manager :—

*West's Gas Improvement Co., Ltd., Manchester	£17,307

BARNOLDSWICK.—Construction of an impounding reservoir with a final capacity of 100 million gallons at Elslack Moor, near Skipton, Yorks, for the U.D.C. Mr. E. J. Silcock, consulting engineer, 25, Victoria-street, Westminster :—

A. Monk & Co., Irlam	£300,000
J. Wimpenny & Co., Huddersfield	258,867
Monk & Newell, Ltd., Bootle	242,528
Harold Arnold & Son, Doncaster	221,198
E. & T. Howarth, Rochdale	212,554
Squires & Sons, Selby	188,731
Henry Hayes, Ltd., Manchester	187,113
Crawford Bros., Nottingham	176,333
Saml. Johnson & Son, Mirfield	175,000
A. Waddington & Son, Sheffield	165,000
Fred. Mitchell & Sons, Manchester	151,900
L. J. Speight, Ltd., London	145,607
Muirhead, Macdonald & Wilson, Birmingham	142,543
Selwood, Lloyd & Co., Birkenhead	141,560
Charles Wade, Halifax	139,864
*Hayes (Stockport), Ltd.	139,346

BARROWDEN.—Four cottages in pairs at Barrowden, four in pairs at North Luffenham, four in pairs at Morcott. Mr. G. Dolphin, surveyor, North-street, Uppingham :—

Four cottages at Barrowden—

T. A. Dorman, Uppingham	£2,110	2	3
A. Dalby, Uppingham	2,045	15	0
W. Stapleton, North Luffenham	1,881	15	3
*E. Ireson, Stamford	1,827	13	6

Four cottages at Morcott—

T. A. Dorman, Uppingham	2,113	2	3
A. Dalby, Uppingham	2,057	0	0
W. Stapleton, North Luffenham	1,881	15	3
*E. Ireson, Stamford	1,831	15	6

Four cottages at North Luffenham—

G. Grimes, Stamford	2,609	2	0
W. Stapleton, North Luffenham	1,881	15	3
*E. Ireson, Stamford	1,827	13	6

(Subject to H.M. approval.)

BARTON.—Power station, for the Manchester T.C. Messrs. C. S. Allott & Sons, architects, North-parade, St. Mary's Parsonage, Manchester :—

*C. H. Normanton & Sons, Manchester.

BELFAST.—Sundry renovations and painting work at Corry's Buildings, Union Workhouse, for the B.G. Messrs. Young & Mackenzie, chartered architects :—

*J. Crawford, Belfast.

BLACKPOOL.—Painting and decorating at the Talbot-road Police Station, for the C.B. :—

*Walmsley & Sons, Blackpool.

BLACKPOOL.—Painting and decorating the single men's quarters at the Central Police Station, for the C.B. :—

*Walmsley & Sons, Ltd.

BOLTON.—Alteration and reconstruction of the entrance of the Horwich car shed, for the T.C. :—

*J. C. & F. Woods.

BOLTON.—Alterations to branch bank at Derby-street, for the District Bank, Ltd., Manchester. Messrs. Francis Jones & H. A. Dalrymple, F. & A.R.I.B.A., architects, Manchester :—

*E. & S. Street, Ltd., Farnworth.

BRADFORD.—Painting work required at St. James's Markets, abattoir and cold air stores, for the T.C. :—

*A. Sutcliffe & Sons, Ltd., Bradford	£2,139 16 6

BRADFORD.—Alteration and improvements at the Windsor Hall, for the City Council :—

All trades—*S. Wright & Co.

BRADFORD.—Additional story to the warehouse premises of Messrs. Leigh & Pearce, Ltd. wholesale provision merchants :—

‡J. & P. Obank.

BRIDLINGTON.—Rebuilding of the "Cock and Lion" hotel, for Messrs. Jno. Smith's Tadcaster Brewery Co., Ltd. :—

*Wm. Birch & Sons, Ltd.

BURTON-ON-TRENT.—Painting of the exterior of the Mona-road houses, for the C.B. :—

*Timmis Bros., Burton-on-Trent £118

BURTON-ON-TRENT.—Inspectors' temporary office at the Town Hall, for the C.B. :—

*Midland Joinery Works, Ltd. £131

BURTON-ON-TRENT.—Sub-station and transformer house at Woodville, for the C.B. :—

*G. Hodges & Son £389 15

BURY.—Premises for dairy, at Georgianna-street, for the Bury Co-operative Society, Ltd. Mr. C. R. Cooper, L.R.I.B.A., architect, Market-street :—

*J. Greenwood, Ltd., Bury.

CADISHEAD.—Parish church, for the Church Council of St. Mary's, Cadishead :—

*Brew Bros., Cadishead £7,708

CANNOCK.—Small public convenience at Huntington, for the R.D.C. Mr. H. M. Whitehead, engineer, Penkridge, Stafford :—

*Gaius Dando £1034

(All of Cannock.)

CHATHAM.—Six parlour-type houses, for the T.C.:—

*H. Brunning.

CHESTER.—Painting and decorating the exterior and interior of (*a*) Children's Home at Saughall; and (*b*) Children's Home at Dodleston, for the B.G. :—

*G. Lloyd, Chester.

COLNE.—Alterations to bank in Albert-road. Mr. W. H. Atkinson, architect, Colne :—

*Wm. Cowgil, Earby.

COOKSTOWN.—Nineteen single labourers' cottages, 34 double labourers' cottages, and for fencing all the plots for the R.D.C. Mr. A. M. Brennen, engineer :—

*S. Leonard, Donaghrisk—26 houses, £8,845—

Three houses in Curglasson (£341 single and £642 double)	£983
Two houses in Grange	646
Two houses in Ardvarnish	650
House in Grange	341
Two houses in Duffless	650
Two houses in Killycolpy	652
House in Upper Back	346
Three houses in Lower Back (single house £351, pair of houses £652)	1,003
House in Mullantean	324
Three houses in Tamneylennon (single £324, pair £628)	952
Two pairs of houses in Donaghrisk	1,256
House in Gortagowan	341
House in Donaghey	341

*Thomas M'Keown & Sons, Cookstown—20 houses, £7,436—

Two houses in Knockanroe	£734 10
Two houses in Liscausey	800 0
House in Mullaghglass	400 15
House in Tullyweary	386 15
House in Kilsally	385 15
Four houses in Doorless	1,435 0
Five houses in Maloon (single £385 15s., pairs at £1,455)	1,840 15
Four houses in Coolreaghs	1,442 0

*P. Devlin, Kinrush—10 houses, £3,305—

House in Killycanavan	£341 5
Two houses in Mulnahoe	655 4
Two houses in Farsnagh	654 10
Three houses in Killygonland (single £339 10s., pair £652)	991 10
Two houses in Clentoquin	663 5

*D. Wilkinson, Ballygroogan—eight houses, £2,678—

House in Killeenan	£360
House in Moveagh	338
Two houses in Ballyreagh	660
Two houses in Corkhill	660
Two houses in Craigs	660

*F. Quinn, Trickvallen—seven houses, £2,841—

Three houses in Drumconway	£1,059
Two houses in Trickvallen	711
Two houses in Derrychrin	711

*R. A. Brown, Cookstown — four houses in Orritor	1,500
*P. Kane, Cookstown—four houses in Clare	1,406
*W. Ramsay, Pomeroy—three houses in Cavanakeeran	913
*Benson Bros., Killymoon—two houses in Gortalowry (rural)	693
*H. Thomson Rock—two houses in Oughterard	750
*P. Devlin, Keenaghan—house in Skernahergney	287

CORTONWOOD.—New Wesleyan Hall at Cortonwood :—

*W. Johnston & Sons.

CROYDON.—For (1) new stalls at the Market Hall, and (2) heating installation of the refreshment rooms and banks at the Cattle Market, for the C.B. :—

(1)*Chitham & Co., Ltd.	£652	0	0
(2)*Ashwell & Nesbit, Ltd.	463	10	11

CROYDON.—Extension to the Stafford-road substation, for the C.B. :—

E. J. Saunders	£227	10	
E. H. Smith	210	0	
Truett & Steel, Ltd.	210	0	
D. Waller	202	0	
*R. Mansell	187	0	

CROYDON.—Nine shops with dwellings over upon part of the sites of 156-172, High-street, for the C.B. :—

*E. H. Smith, Croydon £13,897

(Subject to M.H. approval.)

DEVIZES.—House on land near the sewage works, for the T.C. Mr. A. W. Jakeway, Borough Surveyor :—

Offers Building and Wagon Works	£642	16	
L. Masien & Sons	639	0	
*W. E. Chivers & Sons	616	0	

(All of Devizes.)

EAST ARDSLEY.—Boundary wall at Blackgates housing estate, for the U.D.C. :—

*P. Canning £309 17 6

ELLESMERE PORT.—Extensions to the Ellesmere Port and Cottage Hospital :—

*Salter Bros. (Ellesmere Port), Ltd.

EPSOM.—Alterations for casual ward at Guardians' Institution, Dorking-road, for the B.G. Mr. A. C. Williams, architect, Ashley-road :—

C. J. Norrington	£174 0
H. Taylor & Son	162 10
H. H. & F. Rule	143 10
*G. Skelton & Sons	134 0

(All of Epsom.)

FRIMLEY.—Twenty-four houses on the Chobham-road site :—

*Mr. Renn, Camberley £11,675

GLASGOW.—Demolition and reconstruction of a double cottage at Standhill, near Bathgate, for the T.C. Mr. D. A. Donald, Chief Engineer :—

Brick, &c., works—

*W. Roberts & Sons, Bathgate.

Carpenter, Joiner and Glazier works—

*G. F. Gillon, Whitburn.

Plaster work—

*Jas. Easton & Son, Bathgate.

Slater work—

*Jas. Easton & Son, Bathgate.

Plumber work—

*W. & G. Crighton, Bathgate.

Painter work—

*A. McLean, Whitburn.

HALIFAX.—Sub-station at Trinity House, Blackwall, for the C.B. Borough Engineer, Crossley-street:—

*W. Sutcliffe, Pye Nest, Halifax.

HALIFAX.—Extension to motor bus garage in Skircoat-road tram depot, for the C.B. Borough Engineer, Crossley-street :—

Mason—*E. & T. Bower, Halifax.
Asbestos roofing and steelwork—*F. Frith, Ltd. (Batley), Batley.
Plumber—*P. Smith, Halifax.

HALIFAX.—Steel sheet piling at the Electricity Works, for the C.B. Borough Engineer, Crossley-street :—

*C. Wade, Sowerby Bridge.

HALIFAX.—Excavator, mason and bricklayer, carpenter and joiner, slater and plasterer, plumber and glazier, and painter, for the C.B. of Halifax. 156 houses, Bracewell Farm (58 houses), Nursery-lane (section No. 3), 58 houses ; Nursery-lane (section No. 4, Ovenden Cross), for the C.B. Borough Engineer, Crossley-street :—

Bracewell Farm.

Masons—*Crossley & Radcliffe.
Joiners and Carpenters—*J. H. Naylor & Son.
Slaters and Plasterers—*J. Bancroft & Son.
Plumber—*J. Holdsworth.

(Painting by direct labour.)

Nursery-lane, Section 3.

Masons—*Pickles Bros.
Joiners and Carpenters—*Sutcliffe & Addison.
Slater and Plasterer—*E. Frith.
Plumber—*F. Stocks.

Painting by direct labour.)

Nursery-lane, Section 4.

Masons—*Pickles Bros.
Carpenters and Joiners—*Sutcliffe & Addison.
Slaters and Plasterers—*J. Bancroft & Son.
Plumber and Glazier—*F. Stocks.
(Painting by direct labour.)
(All of Halifax.)

HEMEL HEMPSTEAD.—Twenty-four cottages on the Council's housing site at Blackwell-road, King's Langley, for the R.D.C. Mr. T. H. Lighbody, L.R.I.B.A., 16, Alexandra-road, Hemel Hempstead, Herts :—

G. Bramham & Co., London	£18,915 0
Herbert King, Garston, Watford	16,636 0
E. J. Waterhouse, Chipperfield ..	14,289 10
C. W. Miskin, St. Albans	14,160 0
M. Greenwood & Sons, Harlesden	13,680 0
F. P. Bliss & Son, Bushey.....	13,420 0
Kempster & Williams, Watford..	13,388 17
Gilbert Bros., Berkhamsted	12,948 0
Arthur Cole, Ltd., Luton.....	12,936 0
Payne Bros., Leavesden.....	12,816 0
*J. B. Diddle, Welling, Kent	11,184 0

HEMSWORTH.—Alterations at the Archbishop Holgate Hospital, for the Governors :—

*W. Hanley & Sons.

HESTON AND ISLEWORTH.—Six additional slipper baths at the Isleworth Baths, for the U.D.C. :—

*Horwood & Son £858

HULL.—1,100 lineal yards of fencing at Feren's Boating Lake, for the Corporation. Mr. F. W. Bricknell, City Engineer :—

*R. Cleminshaw, Hull £731

HULL.—Twenty-four non-parlour houses on the Cottingham-road housing site. City Architect :—

*R. W. & J. H. Barnett, Hull—

Non-parlour, three-bedroom type houses	£4,807
Non-parlour, two-bedroom type houses	4,311

HULL.—Two electric houses on the Cottingham-road housing site, for the T.C. City Architect :—

*A. Lyons, Norton, Malton..... £1,010

HYDE.—Thirty-six houses at the Bennett-street site, for the T.C. :—

*C. Cooper & Co., Stretford.

IRELAND.—The Commissioners of Public Works have accepted the following tenders for September :—

Custom House, Dublin (heating)—

*Hadens Engineering Co., Ltd., Dublin.

Ballyneety Garda Siochana Station, co. Limerick (restoration)—

*G. Downes, Hospital, co. Limerick.

Camp Garda Siochana Station, co. Kerry (erection of station)—

*M. Moore, Camp, co. Kerry.

Kilconly Garda Siochana Station, co. Galway (restoration)—

*D. T. Dwyer, Tuam.

Paulstown Garda Siochana Station, co. Kilkenny (restoration)—

*M. Murphy, Bagenalstown.

Rockchapel Garda Siochana Station, co. Cork (erection of station)—

*J. M. O'Keeffe, Annabella, Mallow.

Smithboro' Garda Siochana Station, co. Monaghan (erection of station)—

*McFarlen & Curley, Smithboro'.

Burnham House Preparatory College, Ventry, co. Kerry (heating and lighting)—

*Maguire & Gatchell, Ltd., Dublin.

KEYNSHAM.—Twenty semi-detached parlour-type houses, six in the parish of Saltford and fourteen in the parish of Whitchurch, for the R.D.C. Mr. H. W. Argile, building surveyor, 16, High-street :—

Saltford.

E. Wiggins, Keynsham	£3,750 0
C. T. Tucker, Bristol	3,568 0
Herbert Williams, Warmley	3,300 0
Thornton Hall & Co., Bristol	3,145 0
E. Thomas & Sons, Keynsham	2,954 15
*A. J. Miller, Knowle	2,920 0
Leonard & Thompson, Bristol	2,896 0
Dix & Son, Kingswood	2,680 0

Whitchurch.

T. Broad & Sons, Bristol	8,820 0
C. T. Tucker, Bristol	8,428 0
Jas. Pugsley & Son, Bristol	7,709 0
Geo. Sanders, Bristol	7,630 0
Thornton Hall & Co., Bristol	7,330 0
Dix & Son, Kingswood	7,280 0
Geo. Howell, Bristol	7,076 0
A. J. Miller, Knowle	7,070 0
*E. Walters & Son, Bristol	6,999 0

KIDDERMINSTER.—Lavatory accommodation at the Town Hall, for the T.C. :—

*J. H. Smith.

KILLANIN.—Repairs to the Killanin Dispensary residence, for the co. Clare Board of Health :—

*P. Leyden, Maghera £283

LITTLEPORT.—Timber-framed school to accommodate 80 scholars, at Little Ouse St. John, Littleport, for the Isle of Ely C.C. Mr. R. S. W. Perkins, County Surveyor, Lynn-road, Wisbech :—

Rose & Sons, Whittlesea	£1,445 15 2
B. Lolts, Littleport.....	1,262 0 0
Ambrose & Sons, Ely.....	1,181 10 0
J. S. Prior, Sutton, Ely.....	1,030 18 7
*C. Griffin, Wimblington, March	995 10 6

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LEEDS.—Weigh-house at the new Highways Depot in Pottery Fields, for the T.C. :—

*W. Simpkiss £100

LIVERPOOL.—Heated frame in the Nursery Grounds, Stanley Park, for the T.C. Land Steward and Surveyor :—

*R. H. Green, Liverpool.

LONDON.—Tenders have been accepted for September by H.M. Office of Works :—

Building works.—Bolt Head Coastguard Station—hut : H. J. Lidstone, Kingsbridge. Foreign Office, S.W.—Re-drainage : J. Mowlem & Co., Ltd., London, S.W. Garston, Liverpool, Telephone Exchange, &c—erection : J. Williams (Liverpool), Ltd., Liverpool. Harrow, H.M. Stationery Office—iron handrail : T. W. Palmer & Co., London, S.W. Harrow Telephone Exchange—asphalte : Natural Rock Asphalte, Ltd., London, E.C. ; steelwork : The Aston Construction Co., Ltd., London, N. Hatch End, Middlesex, Telephone Exchange—asphalte : Natural Rock Asphalte, Ltd., London, E.C. ; steelwork : The Aston Construction Co., Ltd., London, N. ; stonework : W. Benfield & Son, London, N.W. Hereford, Broad-street P.O.—alterations : E. W. Wilks & Son, Hereford. Kingswood, Bristol, Employment Exchange—slating : Ernest Mathews & Co., London, W.C. ; steelwork : J. Lysaght, Ltd., Bristol. Leek Telephone Exchange—erection : Cooper Bros., Macclesfield. Maintenance work—Burton-on-Trent : T. Lowe & Sons, Ltd., Burton-on-Trent. Canning Town, E., &c. : Johns Bros., London, E. Dover : W. H. Grigg, Dover. Edmonton, N., &c. : G. Groves & Son, London, N. Greenwich, S.E. : H. Groves & Son, London, S.E. Hanwell, W., &c. : G. Holland & Sons, London, W. Henley-on-Thames : Walden & Son, Henley-on-Thames. Liverpool : J. W. Jones & Sons, Ltd., Liverpool. New Cross, S.E., &c. : W. Nicholson & Son (Leeds), Ltd., London, E.C. Preston : T. Cottam, Preston. Stratford, E., &c. : A. Webb, London, E. Streatham, S.W. : Dowsett & Jenkins, Ltd., London, S.W. Sunderland : J. G. Mark, Sunderland. Swansea : D. Jenkins, Ltd., Swansea. Wigan : J. Johnson & Son, Wigan. Willesden, N.W., &c. : Freeman & Sons, London, N.W. Winchester : E. Carter & Son, Winchester. Woolwich, S.E., &c. : A. S. Wells, London, S.E. York : J. W. Maw & Sons, Ltd., York. Maryhill, Glasgow, Telephone Exchange—steelwork : Redpath, Brown & Co., Ltd., Edinburgh. Merstham, Red Hill, Telephone Exchange—erection : H. D. Ebbutt & Son, Croydon. Morley Employment Exchange—erection : James Clegg & Sons, Morley. Norden, Rochdale, Telephone Exchange—erection : R. Kay, Rochdale. Penmon Coastguard Station—joiner : Jacob Smith, Ltd., Loughborough. Port Ellen P.O.—alterations, &c. : James Gibson & Co., Glasgow. Princes Risborough Laboratory—roof glazing : W. H. Heywood & Co., Ltd., London, S.W. ; slating : Roberts, Adlard & Co., London, S.E. Science Museum, S.W.—terrazzo work : The Marble Mosaic Co., Ltd., Bristol. Shoreditch, E., Employment Exchange—glass and glazing : Miller, Beale & Hider, Ltd., London, N.W. South Bank, Yorks, Employment Exchange—painter : T. Whatley & Son, Ltd., Middlesbrough ; plasterer : Crabtree & Pearson, Middlesbrough ; plumber, &c. : Baker Bros., Middlesbrough. Stockton-on-Tees Telephone Exchange—joiner : Broadbent & Sons, Ltd., Stockton-on-Tees. Stourbridge Telephone Exchange—erection : J. Guest & Son's Successors, Stourbridge. Strood, Rochester, Telephone Exchange—erection : C. E. Skinner & Son, Ltd., Chatham. Stroud Employment Exchange—slater : Broadbent & Stephens, Leicester. Teddington, National Physical Laboratory—steelwork : George Pauling, Ltd., London, S.W. Willenhall Employment Exchange—erection : W. H. Crump, Birmingham.

Engineering services.—Houses of Parliament, S.W.—refrigerating plants : E. West & Beynon, Ltd., London, S.E. Kingsway, W.C., Adastral House—wiring : Electrical Installations, Ltd., London, E.C. "Strand" Telephone Exchange, W.C.—heating : J. Combe & Son, Ltd., London, S.W. Teddington, National Physical Laboratory—converting plant : The British Thomson-Houston Co., Ltd., London, W.C. Westminster, S.W., Industrial Museum—wiring : The Commercial Telephone & Electrical Co., Ltd., London, E.C.

Painting.—Bovis, Ltd., London, W. ; Sykes & Son Ltd., London, W.C.

LONDON.—Tenders accepted by H.M. War Office for September :—

Building works and services.—Glazing work at Woolwich, Enfield and Waltham Abbey : W. H. Heywood & Co., Ltd., Huddersfield ; Mellowes & Co., Ltd., London ; Paragon Glazing Co., London. Stable blocks, Weedon : Bosworth & Wakefield, Daventry. Warrant Officers and Married Soldiers' Quarters at York : W. Tune, Osgodby. Operation and X-Ray block, Holywood Barracks, Belfast : Thos. McKee & Sons, Ltd., Belfast. Improvements to huts at Reed Hall, Colchester : Hutton & Son, Birch, near Colchester. Newcastle, Fenham Barracks, Married Quarter : J. R. Surtees, Bernfieldside, Blackhill, co. Durham. Lichfield, Whittington Barracks, Bath House : Wm. Sharp & Sons, Barton-under-Needwood, Burton-on-Trent. Warley, repairs to parade ground : Myall Bros., Leigh-on-Sea, Essex. Feltham, M.T. Depot, improvements to Regimental Institute : J. B. Edwards & Co., London. North Aldershot, Lynchford-road, bathrooms to 12 Married Soldiers' Quarters : W. Tanner & Sons, Aldershot. Portsmouth, Cambridge Barracks, annexes for baths and w.c.'s to Married Quarters : F. Bevis, Portsmouth. Didcot, Foxhall Camp, re-making road : J. Perkins & Son, Ltd., Bristol. Beverley, erection of sergeants' mess : H. & F. Pape, Ladygate, Beverley. Catterick, conversion of officers' mess to grocery shop : G. R. Wade & Son, Richmond, Yorks. Sheffield, Hillsborough Barracks, periodical services : C. J. Else & Co., Matlock.

Installations.—Gravesend Barracks, electric light Burch & Verture, Aldershot.

LONDON.—Cleaning or painting the following schools, for the L.C.C. :—

Abbey, Westminster—Westminster Technical Institute—

W. T. Lawrence	£1,754	0	0
Lole & Co.	1,742	0	0
H. W. Spinks	1,715	0	0
Prestige & Co., Ltd.	1,695	0	0
W. S. Barton & Co.	1,692	0	0
*Sims & Russell	1,612	0	0
Architect's estimate	1,673	0	0

Battersea, S.—County Secondary School, Clapham—

Bridge & Co.	2,189	0	0
Curd Brothers	2,136	0	0
C. & R. Harding	2,076	0	0
H. S. Lee, Ltd.	2,026	0	0
F. M. Bleach & Co.	1,867	5	0
R. S. Ronald	1,825	0	0
C. H. Boyd & Son, Ltd.	1,662	0	0
F. Jones	1,634	0	0
Rice & Son	1,589	0	0
*Triggs & Co.	1,485	0	0
Architect's estimate	1,562	0	0

Hackney, C.—County Secondary School, Dalston—

W. Silk & Son, Ltd.	£2,257	0	0
G. Butters	2,065	0	0
A. E. Symes	1,964	0	0
*Runham Brown Bros.	1,768	0	0
W. M. Brand	1,744	0	0
Architect's estimate	1,769	0	0

Hackney, C.—Hackney Downs School—

E. Pollard & Co., Ltd.	£3,115	0	0
A. Monk	3,089	0	0
*W. M. Brand	2,990	0	0
F. Cottrell, Ltd.	2,850	0	0
Architect's estimate	2,884	0	0

Hackney, S.—South Hackney Day Continuation School and College-lane (PD) School—

A. E. Symes	£2,238	0	0
W. M. Brand	2,175	0	0
W. Silk & Son, Ltd.	2,084	0	0
*Stoneley & Co.	1,956	0	0
G. Butters	1,902	0	0
Architect's estimate	1,850	0	0

Lewisham, W.—County Secondary School, Brockley—

Bovis, Ltd.	£2,297	0	0
Cole, Loasby & Co., Ltd.	2,160	0	0
H. Kent	2,140	0	0
W. Mills & Sons, Ltd.	2,095	0	0
F. R. Hipperson	2,092	0	0
Edwards Construction Co., Ltd.	2,088	0	0
Thomas & Edge	2,050	0	0
Harry Groves & Son	2,035	0	0
J. Scott Fenn	1,976	17	0
*D. C. Bowyer	1,702	3	6
W. Bickerton	1,673	0	0
Architect's estimate	1,766	0	0

Paddington, N.—Paddington and Maida Vale High School—

F. Foxley & Co., Ltd.	£1,570	0	0
W. Phillips & Son	1,559	0	0
W. Hussey	1,489	0	0
G. Godson & Sons, Ltd.	1,468	0	0
C. Berger	1,344	19	0
*Nox, Ltd.	1,127	0	0
Architect's estimate	1,171	0	0

Paddington, N.—Paddington Technical Institute—

Nox, Ltd.	£3,933	0	0
F. Foxley & Co., Ltd.	3,725	0	0
W. H. Cooper & Son	2,909	0	0
G. Godson & Sons, Ltd.	2,547	10	0
*L. Kazak	2,435	0	0
Architect's estimate	2,496	0	0

Shoreditch—Shoreditch Technical Institute—

R. Woollaston & Co.	£3,754	14	0
T. Carr	3,675	0	0
Cole, Loasby & Co., Ltd.	2,735	0	0
Whitbys, Ltd.	2,689	0	0
*Arthur H. Inns, Ltd.	2,369	0	0
Architect's estimate	2,335	0	0

Streatham—Furzedown Training College—

Mullen & Lumsden, Ltd.	£4,684	0	0
J. & C. Bowyer, Ltd.	4,636	0	0
W. Akers & Co., Ltd.	4,602	0	0
J. Garrett & Son	4,483	0	0
T. Brown & Son	3,999	0	0
*A. Black & Son	3,400	0	0
C. H. Gibson, Ltd.	2,585	0	0
Architect's estimate	3,330	0	0

Woolwich, W.—Avery Hill Training College—

H. & J. Taylor	£1,395	0	0
Thomas & Edge	1,329	0	0
J. H. Sutch & Sons	1,306	0	0
F. R. Hipperson	1,297	0	0
Edwards Construction Co., Ltd.	1,294	10	0
W. Mills & Sons, Ltd.	1,271	0	0
Harry Groves & Son	1,270	18	0
Bovis, Ltd.	1,177	0	0
*D. C. Bowyer	1,055	11	0
A. G. Shorter	928	0	0
Architect's estimate	1,057	0	0

LONDON.—Structural work for the remodelling of Everington-street school Fulham, W., for the L.C.C. :—

G. E. Wallis & Sons, Ltd.	£19,800
F. R. Hipperson	19,460
Leslie & Co., Ltd.	18,664
E. A. Roome & Co., Ltd.	18,407
J. Garlick (1910), Ltd.	18,245
W. H. Gaze & Son, Ltd.	18,060
J. Garrett & Son	17,860
W. Willett, Ltd.	17,254
W. Downs, Ltd.	17,245
Triggs & Co.	16,831
J. & C. Bowyer, Ltd.	16,667
A. Roberts & Co., Ltd.	16,396
Lole & Co., Ltd.	16,101

(All of London.)

LONDON.—Block of shops and flats, containing 24 tenements, at Middlesex-street, for the City Corporation :—

G. E. Everitt & Sons, Ltd.	£30,970	14	3
W. Simms	29,285	0	0
Holloway Bros. (London), Ltd.	29,085	0	0
Hall, Beddall & Co., Ltd.	28,830	0	0
L. & W. Whitehead, Ltd.	28,346	0	0
Allen, Fairhead & Sons, Ltd.	27,747	0	0
*Walter Lawrence & Son, Ltd.	27,654	0	0

(Subject to the approval of the M.H.)

LONDON.—Tar-paving and for the enlargement of the "Elfrida" School, Lewisham, including the provision of handicraft and domestic economy accommodation and the supply of the necessary furniture, for the L.C.C. :—

W. Harris, Ltd.	£8,639
Hill & Gurr	7,996
J. Garrett & Son	7,813
W. M. Brand	7,623
W. Akers & Co., Ltd.	7,623
Rice & Sons	7,481
H. Groves & Son	7,395
Cole, Loasby & Co., Ltd.	7,241
H. H. Hollingsworth & Son	7,096
Turnbull & Son	7,057
T. D. Leng	7,038
J. & C. Bowyer, Ltd.	6,737
J. Marsland & Sons, Ltd.	6,689
Mullen & Lumsden, Ltd.	6,589
‡J. Smith & Sons (Norwood), Ltd.	6,514
Architect's estimate	6,723

(All of London.)

LONDON.—New central schools at Albion-road, Stoke Newington, and Janet-street, Poplar, for the L.C.C. :—

W. Moss & Sons, Ltd.	£23,170	0	0
Griggs & Son	22,940	0	0
A. Monk	22,360	0	0
Wilson Lovatt & Sons, Ltd.	21,981	12	10
Patman & Fotheringham, Ltd.	21,893	0	0
W. H. Gaze & Sons, Ltd.	21,861	0	0
Thomas & Edge	21,112	0	0
Holliday & Greenwood, Ltd.	20,829	0	0
Leslie & Co., Ltd.	20,331	0	0
G. E. Wallis & Sons, Ltd.	19,968	0	0
‡J. & C. Bowyer, Ltd.	19,857	0	0
Architect's estimate	20,577	0	0

(All of London.)

LONDON.—Erection of the necessary buildings and the adaptation of the existing premises on the Brent Knoll site, Lewisham, for the purpose of a day open-air school, for the L.C.C. :—

A. Black & Son	£6,680	0	0
H. H. Hollingsworth & Son	5,430	0	0
W. Harbrow, Ltd.	5,207	0	0
W. Akers & Co., Ltd.	5,162	0	0
T. Brown & Son	5,161	2	0
G. E. Wallis & Sons, Ltd.	4,982	0	0
T. D. Leng	4,939	0	0
Humphreys, Ltd.	4,902	0	0
W. Harris, Ltd.	4,893	0	0
W. J. Dixon & Son	4,860	0	0
Cole, Loasby & Co., Ltd.	4,848	0	0
H. Groves & Son	4,746	0	0
A. V. Goad	4,736	12	10
J. & C. Bowyer, Ltd.	4,679	0	0
Triggs & Co.	4,647	0	0
Bridge & Co.	4,437	0	0
‡Hill & Gurr	4,356	0	0

(All of London.)

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LONDON.—New elementary school at Sudbourne-road, Brixton, for the L.C.C. :—

C. Mistlin & Sons, Ltd.	£30,550
Galbraith Brothers, Ltd.	28,850
Thomas & Edge	28,849
W. H. Gaze & Sons, Ltd.	28,546
F. & H. F. Higgs, Ltd.	28,436
J. Carmichael	27,999
H. Kent	27,769
G. Parker & Sons, Ltd.	27,330
W. Akers & Co., Ltd.	27,245
G. E. Wallis & Sons, Ltd.	27,234
Copley Brothers, Ltd., Epsom	27,226
J. Garrett & Son	26,904
Lole & Co.	26,818
T. D. Leng	26,817
Leslie & Co., Ltd.	26,469
*J. & C. Bowyer, Ltd.	26,173
Architect's estimate	26,543

(All of London.)

LONDON.—Rebuilding the infants' department of the Pritchard's-road school, Bethnal Green, for the L.C.C. :—

Marrable Bros.	£16,935
Griggs & Son	16,775
W. M. Brand	16,155
W. S. Barton & Co.	15,846
Rowley Bros.	15,191
A. Monk	14,995
T. D. Leng	14,860
J. & C. Bowyer, Ltd.	14,825
*Patman & Fotheringham	14,619
Architect's estimate	14,975

LONDON.—Wiring and fitting for electrical work at the extension of the L.C.C. Hackney Institute, for the L.C.C. :—

Metropolitan Borough of Hackney (Electricity Dept.)	£4,137	15	5
Collins Electrical, Ltd.	3,540	0	0
Jacob, White & Co., Ltd.	3,167	9	0
A. V. Gifkins & Co., Ltd.	2,718	0	0
Alexander Hawkins & Sons	2,675	0	0
J. M. Connare	2,478	0	7
Alpha Manufacturing & Electrical Co., Ltd.	2,150	0	0
Morris Electrical Co., Ltd.	2,025	0	0
C. Mortlock, Ltd.	1,983	10	0
*The Commercial Telephone & Electrical Co., Ltd.	1,952	0	0
Bailey & Incledon	1,899	0	0

(All of London.)

LONDON.—Enlargement of St. Marylebone Grammar School, St. Marylebone, for the L.C.C. :—

Griggs & Son	£42,240
John Garlick (1910), Ltd.	41,554
Higgs & Hill, Ltd.	40,432
J. & C. Bowyer, Ltd.	39,777
W. Moss & Sons, Ltd.	39,671
Thomas & Edge	39,440
G. Godson & Sons, Ltd.	39,391
Leslie & Co., Ltd.	37,814
*Bovis, Ltd.	36,670

(All of London.)

MANCHESTER.—Palais de danse, motor show rooms, garage, &c., at Wilmslow-road, Fallowfield. Mr. H. F. V. Newsome, architect, 2, Blue Boar-court :—

*J. Epstein, Manchester.

MANCHESTER.—New building, comprising three garages and a store, at Cornet-street, Broughton. Mr. A. V. Roberts, architect, 113, Great Cheetham-street :—

*Davis & Son, Manchester.

MARCH.—Demolition of two bridges at Wisbech Canal, and formation of concrete tunnel, for the Ely C.C. Mr. R. S. W. Perkins, County Surveyor, Lynn-road, Wisbech :—

*H. Rands & Son, Wisbech.... £2,577 7 4

MUSSELBURGH.—Fourteen houses at Stoneybank :—

*A. Morrison.

NEWPORT, I.O.W.—Alterations of premises at back of County Hall, Newport, for the purpose of laboratory and clinic, for the Isle of Wight C.C. Mr. S. R. Cocks, County Surveyor, 5, St. Thomas-street, Ryde :—

*G. F. Quinton, Newport, I.O.W. ... £224 10

NEWTON ABBOT.—Seventy houses on the Broadlands estate, for the U.D.C. :—

*Universal Housing Co., Rickmansworth.... £32,323

PRESTON.—Tramway shelter and conveniences for both sexes at the north-east corner of Deepdale Enclosure, for the C.B. :—

*S. P. Ackman.... £280 11

ROCHDALE.—Alterations to premises in Yorkshire-street, for the Townend Providing Co. Messrs. Smith & Cross, architects, Town Hall Chambers :—

*R. & T. Howarth, Rochdale.

SALFORD.—Static transformer sub-station off Rectory-lane, Prestwich, for the C.B. :—

*E. B. Jones & Rawlinson, Ltd., Salford £385

SALFORD.—Extension of the transformer sub-station in West-street, Irlams-o'-th'-Height, for the C.B. :—

*S. Megarity & Co., Ltd., Salford.... £7 8 0

SHENLEY.—Rebuilding of King William IV public house, for Messrs. Adey & White, Ltd. Mr. S. E. Gomme, L.R.I.B.A., architect and quantity surveyor, Market Chambers, Watford :—

J. Darvill & Son, Watford	£2,700
G. P. Whitby, St. Albans	2,542
W. Richardson & Son, Ltd., Hatfield	2,529
*H. Brown, Watford	2,495

SOLIHULL.—Four non-parlour type of houses at Aspley Heath, Tanworth, for the R.D.C. Messrs. J. A. Perry & Wilson, architects, County Buildings, 147, Corporation-street, Birmingham :—

	Per house.
*H. B. Tarleton, East Redditch, near Birmingham	£506 7 9

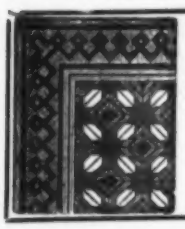
(Subject to the Ministry's approval.)

STANSTEAD ABBOTTS (HERTS).—Twelve houses, for the Ware R.D.C. Messrs. Cherry & Lutyens, architects, 7, Buckingham-street, W.C.2 :—

A. E. Wood & Sons, Highams Park	£7,980
J. L. Glasscock & Sons, Bishop's Stortford	6,558
J. Oram & Sons, Waltham Abbey	6,060
W. J. Haward, Hoddesdon	5,999

TOWCESTER.—Enlarging the pumping station, for the R.D.C. Mr. T. Harris :—

*H. J. Newport, Towcester	£156 18



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*W. A. Sherratt, Church Stretton	12,092

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